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The Builder

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Leading Article

Housing and Land

THE MANY RECENT WARNINGS about the housing position, and particularly about the scarcity and high cost of building land, have been usefully reinforced by a report entitled 'The Housing Land Crisis,' compiled and issued by The Alliance Building Society (summarised on page 832). Based mainly on reliable statistics, this reaches a number of conclusions that should help to bring the whole problem into focus, particularly in relation to future needs.

It is claimed, first of all, that the development plans prepared under the Town and Country Planning Act of 1947 for the twenty-year period to 1971 are out of date and that the estimates need complete revision. The estimated increase in population is shown to have been far too low, and it is claimed that by the end of the century our population will have grown by 10,000,000. In the next twenty years it is estimated that eight million new dwellings will be required to meet the increase in the number of households and for the replacement of existing slums and obsolescent houses, which means that an average of 400,000 houses a year should be completed—a figure much higher than the highest ever achieved (347,000 in 1937). It is clear that we are not geared to the required increase either in general planning, in the allocation of land, or financially and industrially.

It is estimated that the land required for urban development in the light of housing need over the next twenty years is of the order of 800,000 acres. If this were in fact taken, the total urban development of England and Wales would then be approximately 12.6 per cent of the total land area, a loss of some 3.7 of the agricultural acreage since 1950. It is claimed, however, that the loss of agricultural productivity could, if necessary, be made good within the period.

Building land is the essence of the problem.. Although in many parts of the country a ten years' supply is available, in several places, notably around London, Birmingham and large towns in the South of England, the supply will last for only three to five years, while in areas of acute pressure in the South-East there is barely one year's supply. The price of land for housing has risen fantastically. In Chigwell, Essex, it has recently reached £12,300 per acre, while sites for flats have fetched £23,000 per acre in Reading, £40,000 in Wembley, and £48,000 in Worthing—figures at which local authorities are quite unable, even if willing, to compete.

The report rightly insists that if living conditions in the great conurbations are not to become intolerable there must be positive and effective measures to steer industry, and therefore people, to other parts of the country. 'The pressure to permit nibbling at both sides of the green belts,' says the report, 'must be resisted—spurious "infilling" and applications to build on the fringes where the

land is claimed to be " not an essential part of the green belt " will quickly lead to the disappearance of the green belts altogether.'

Clearly, every yard of land in our overcrowded island will have to be put to the best possible use. Before we make heavy further demands on agricultural land we need to know to what extent the problem could be met by such measures as the redevelopment of obsolescent urban areas on more compact lines; by the use of derelict or semi-derelict land and unused or only partially used allotments; by building higher; by building over railway sidings and unused railway land, and so forth.

Obviously, we are faced with an immensely complex problem of economic, social and physical planning, in which only the Government can give a lead, since it involves major policy decisions on capital investment, employment, the location of industry, new and expanded towns, the provision of schools, medical services, roads, open spaces, access to and preservation of the countryside, to say nothing of ancillary problems such as emigration and immigration, which could affect planning to no inconsiderable extent. If an overall review of our probable long-term commitments has not yet been undertaken then clearly no time should be lost in putting it in hand.

Notes of the Week

A Diary for the Building Industry ; Civic Trust Awards ; Editors Under Fire ; Mr. Bengt Axelson

FOR THE FIRST TIME in the history of Britain's huge £2,250m. building industry, it is claimed, a co-ordinated diary of events for the whole of the country is to be maintained in one place—the Manchester Building Centre. By picking up the telephone and dialling Manchester Central 6933 and then asking for Miss Dorothy Jones, ARIBA, who has been put in charge of this new service, anyone in the industry can leave details of events such as important meetings, press conferences, film shows, lectures, exhibitions, opening of new buildings, factories, etc. When Miss Jones is off duty a machine will 'answer' and automatically record the information, giving a 24-hour service.

Mr. John P. Griffiths, director of the Manchester Building Centre, explained that for six months the Centre has been running a diary of events limited to building in the north-west but now, in consultation with the Building Centre, London, the Building Editors' Group and the Institute of Public Relations, it has been decided to extend this diary to cover main events in London and the whole country.

'We in Manchester,' said Mr. Griffiths, 'will keep a record of the date, time, sponsor, subject, responsible official and his telephone number for each event together with a note as to whether this function is private, public or by invitation only. The diary will always cover 12 months and it will be published a clear week before the beginning of each month.' The service, which is free, should make a useful contribution to the industry and the Centre is to be congratulated on the initiative displayed in undertaking its organisation.

Civic Trust Awards

DETAILS have been announced for the submission of entries for the 1961 Civic Trust awards. It is now the turn of those councils in the Greater London area that agree to participate in the scheme, the object of which is to stimulate public interest in the appearance of towns and villages and to create an awareness of the problems of architecture, planning and design. So much has been achieved by the LCC and the various borough councils of Greater London that the assessors, who have not yet been appointed, will have a long, arduous, though interesting task. The awards cover schemes completed during a three-year period from May, 1958, and unlimited submissions by owner or client, architect or contractor, are to be in by December 31.

Editors Under Fire

EDITORS of five of the six principal architectural papers accepted the invitation by the Bartlett Society, the progressive and aggressive union of students at the Bartlett School of Architecture, University of London, to explain briefly their editorial policies towards architecture. The evening began quietly enough, the proceedings being opened by the chairman, MICHAEL CASSIDY. The editors, NOEL MUSGRAVE of the 'RIBA Journal,' GEORGE MANSELL of the 'Architect & Building News,' IAN LESLIE of 'The Builder,' COLIN BOYNE of 'The Architects' Journal' and REYNER BANHAM of 'The Architectural Review,' in turn said their party pieces and it was clear that the Professional Press is as diverse as the industry it serves. GEORGE MANSELL and IAN LESLIE expressed similar views on the question of architecture being only a part of a wider industry, the latter postulating against the irrational tendency of certain sections, especially the architects, to isolate themselves.

* * *

LENGTHY DISCUSSIONS centred round the choice and presentation of the buildings illustrated and the lack of informed architectural criticism. Here REYNER BANHAM spoke with the authority of the glossy monthly which, not harnessed with the production difficulties of a five-day deadline, was able to choose carefully and to commission 'only the best' writers in the field to comment on buildings featured. IAN LESLIE thought that apart from the importance of the news picture there were two kinds of buildings that architects liked to look at—the good ones and the bad ones; there was, he suggested, a certain satisfaction in seeing other peoples' mistakes. On the question of criticism the editor of 'The Builder' had very strong views. He thought that to criticise a building already erected was merely hot air and achieved no useful purpose. It would be far more to the point to produce an authoritative criticism of a project at the drawing-board stage—then perhaps something could be done to put matters right. This did, however, present many ethical problems, i.e., what was the view of the client ?

Questions from the students spotlighted such points as whether editors controlled advertising, the poor standard generally of the presentation of advertisements, colour work in the editorial illustrations, the voluntary testing of building materials, and the publishing of work and comment by students.

Mr. Bengt Axelson

ARCHITECTS, engineers, builders and others filled the Marie Antoinette room at the Ritz Hotel, Piccadilly, on October 24 to meet Mr. Bengt Axelson, the deputy chairman of the Swedish Society of Civil Engineers, and Mrs. Axelson. The reception was organised by the Cement and Concrete Association who invited the Swedish engineer to lecture here on methods of housing construction in his country. Mr. Axelson is a down-to-earth engineer who is full of enthusiasm for his work and who passionately believes that the solution to the housing problem in Sweden rests in a rationalised and highly mechanised building industry—to speed up the work of construction and to reduce man-hours on the site. Two systems described in his lecture on October 23 at the Institute of Electrical Engineers will be shown in a future issue.

Poet's Corner

'EVEN GRANTED investment in new construction and urban rebuilding at unprecedented rates, the growth of traffic is going to demand a major act of self-discipline by the whole nation.'

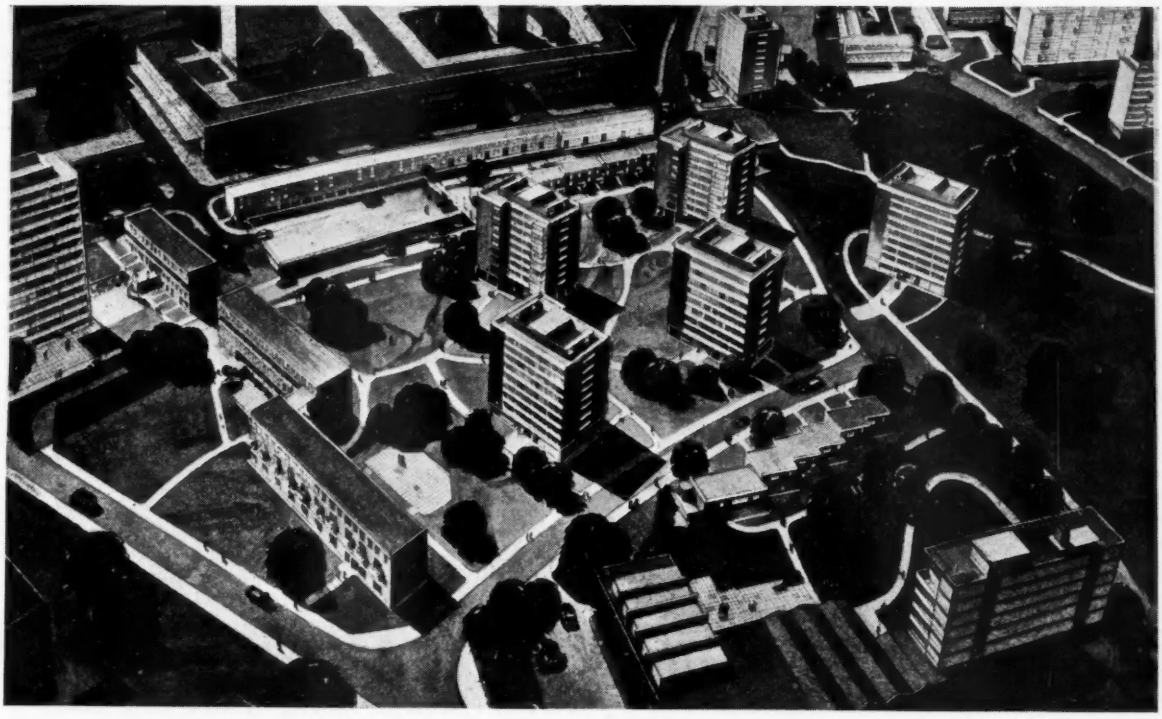
MR. COLIN BUCHANAN.

According to calculation
A decade of progress forebodes
The doubling of motor traffic
Along our congested roads.
However improved the old ones,
However capacious the new,
They never can cope with the trouble
The motor is certain to brew.
So hands up those chivalrous persons
Who think they would like to prepare
To shut the old car in the garage
And travel on Shanks's Mare.

ANON.

Housing Project, Birmingham

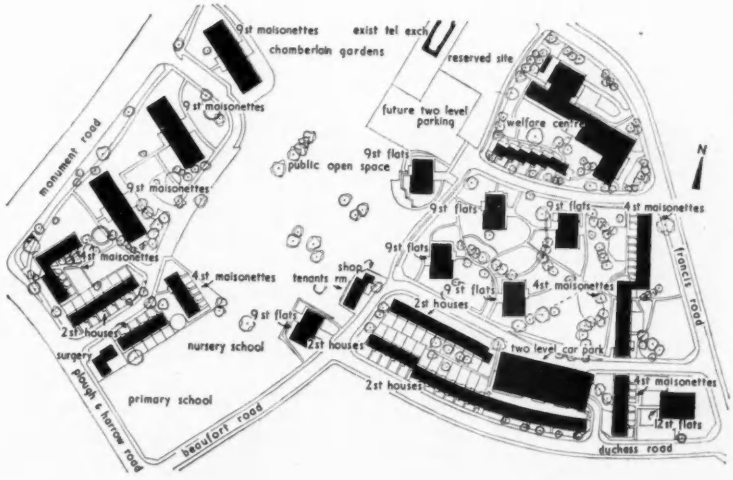
A. G. SHEPPARD FIDLER, city architect
B. L. LEICESTER, architect in charge of scheme



CHAMBERLAIN GARDENS, a new area of comprehensive redevelopment, half a mile from the City Centre, adjoins Ladywood redevelopment area on the south. Compared with its neighbour, it presents new problems arising both from the existing conditions and from the nature of the redevelopment required. This is an area of 14.69 acres in two sectors separated by a tract of public open space. The existing houses were larger and more substantial than in Ladywood and, instead of internal courts, had long narrow gardens containing many fine mature trees. The problem was to provide an open layout which would preserve as many as possible of these trees and yet achieve a nett residential density of 126 habitable rooms and 136 persons per acre. A further requirement, and an exacting one, was that the scheme should include garages or parking spaces in the ratio of one per household.

It was clear that to meet such a programme, new housing types must be designed and the fullest use be made of sunk and dual-level parking. Fortunately there were several favourable factors. It was possible, for example, to house a proportion of the cars in underground parks beneath parts of the public open space while, in the eastern sector the fall of the ground by some 12 to 15 ft. from the

Above, site perspective, and below, site plan showing the distribution of type accommodation. The planning aim was to achieve a density of 126 habitable rooms and 136 persons per acre, provide one garage or parking space per house, and to preserve existing trees by means of open layout

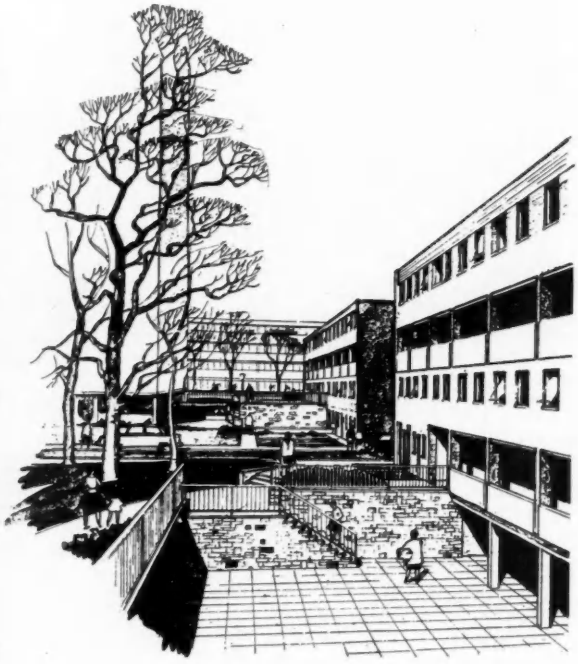


9-STOREY FLATS, Scale : 1 in. = 16 ft.

CROSS-OVER MAISONETTES, Scale : 1 in. = 16 ft.

9-storey flats

9-storey maisonettes



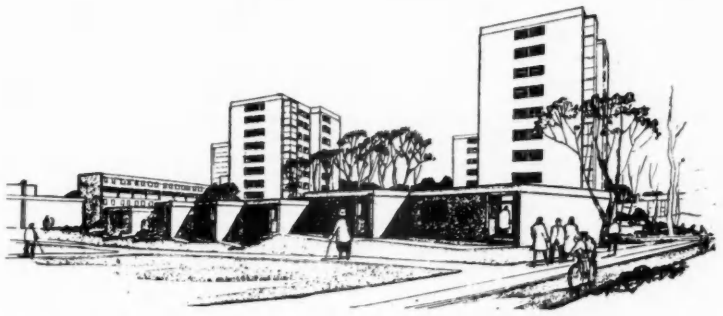
4-storey maisonettes, Francis-road

terrace houses and two-level car park

perimeter roads towards the centre of the site simplified the problem of vehicle access at two levels. The existing housing half-way along Duchess-road, for instance, was set back into a bank so steep that what appeared to be two-storey dwellings from the road were in fact three storeys high at the rear. Here it was possible to site a curved terrace of 2-storey flats along the road frontage with 14 rear access lock-up garages beneath. Parallel with these garages and separated from them only by a narrow court, a two level car park for 152 vehicles has been planned.

Roof-level access to this car park is from Duchess-road while the lower tier is served by a low level estate road. This road, together with the permanent free ways inside the lower parking tier, also gives access to the lock-up garages. Supplementary to the garages are parking lay-bys at suitable points on the estate roads.

The two sectors comprising the present Chamberlain Gardens development will contain a total of 569 dwellings of which 34 are in two-storey houses, 18 in two-storey flats, 85 in four-storey maisonettes, 204 in nine-storey tower-block flats, 72 in a 12-storey block of flats, and 156 in nine-storey cross-over maisonettes. In addition, but not included in the density figures for the scheme, there are 5 bungalows for old people and 1 caretaker's bungalow on the site of an adjoining multi-storey home for handicapped persons.



top, Duchess-road frontage; above, old people's dwellings

pedestrian way under 4-storey maisonettes

The nine-storey flats are in precast concrete frame construction, including all beams and wall-, floor-, roof and structural party- and spine-wall units. The structural frame and external walling is faced in white Faience and dark grey brick cladding. Windows are aluminium vertical sliding sashes in timber subframes.

The nine-storey maisonette blocks comprise 4 tiers of cross-over maisonettes planned about a central corridor on alternate floors and raised on ground floor pilotis, a type not previously used in Birmingham.

Each block contains 52 such dwellings in 13 units per two floors with all living rooms facing south and the bedrooms on the opposite side of the building reached by internal private staircases. Of a total of 156 dwellings in these blocks, 144 are 3-bedroom, 4-person maisonettes, a type used for the first time in Birmingham in blocks of this height. Construction is of in-situ reinforced concrete cross-walls with in-situ slab floors. The main external walls to the living room façade are completely timber framed with built-in metal windows and faced asbestos board infill and stall-board panels backed by an inner leaf of lightweight concrete. The parting panels between doors and windows are faced in ribbed aluminium sheet.

The four-storey maisonettes are in brick cross-wall construction with precast concrete main floors, timber intermediate floors and projecting balconies to the living rooms. These blocks, except at corner links, have their main staircases built into the block itself. A recessed mutual exchange balcony is provided as an additional precaution between dwellings on the third floor.

Other housing types are the 12-storey block already mentioned and 32 large two-storey houses for families of 7 persons.

Electric off-peak hot water supply with electric panel floor heating in the hallways and living rooms has been adopted throughout. In the cross-over maisonettes, the heating coils have, in addition, been extended slightly into the bedrooms to provide some background heat to offset their north aspect. In addition, all multi-storey flats and maisonettes have mechanically ventilated internal bathrooms and WC's and electrically heated drying cabinets.

Design group: 9-storey flats: R. M. Cope; 9-storey maisonettes and 2-level car park: B. L. Leicester and U. K. Piatowski; 4-storey maisonettes and 2-storey houses: R. Granelli; 2-storey flats: U. K. Piatowski.

Housing Project
Birmingham

The AA Presidential Address

Mr. Austin-Smith on the Architect's Need for a Social Purpose

THE ARCHITECT'S need for a social purpose and the future of the AA were among the subjects discussed by MR. J. M. AUSTIN-SMITH, MC, TD, AADIPL, FRIBA, when he delivered his presidential address to the Architectural Association, on the occasion of the Association's annual general meeting, held at 34-36 Bedford-square, WC1, on October 25. We take the following extracts from his remarks. Mr. Austin-Smith said:

I believe that the degree of social purpose possessed by architects has a marked effect on the way they run their practices, and that this in turn has a much greater influence on schools of architecture than may be realised. If my thesis be correct, then we should look at the effects on offices of both a good and a poor sense of social purpose and see what type of students they subconsciously cause to be produced.

If, at the same time, we make an assessment of the requirements which architects are likely to be called upon to carry out in the next decade, it should be possible to compare what is thought to be necessary for students, with what is subconsciously produced, and see, in our particular circumstances at the AA, what responsibilities fall to be discharged upon our membership, our school and the Association as a whole.

First, there is the realisation that the exercise of a professional skill is an intellectual process, and secondly, that a profession must have a social purpose, and lastly that society permits a profession to possess certain privileges in order to ensure that the community receives the kind of professional service that it desires. These privileges are for the protection of the community, not for the protection of the profession itself.

The Intellectual Content

I see the intellectual content of architecture as being the application of one's skills to the solving of the problems of the community through the agency of the client who employs one. I believe that architecture is therefore a service to the community, and that the whole of the architect's efforts are concerned with the total performance of the building as seen by the community and the client. The cultivation of a deep social sense must therefore be of major importance, for without it there is a very great danger of losing our sense of direction and purpose.

Without a social conscience it is only a short step to a situation where the architect believes that it is his inalienable right to be allowed to do just what he wants. Such an attitude leads to an inability to realise what is required by society from architects, and is replaced instead by the attitude that society needs what the architect gives it. The result is a far too unhealthy concentration on 'the visual building' to the detriment of all other factors.

An essential step in acquiring a sense of social purpose must surely be the acceptance of society's requirements. There is naturally much more to it than that, but this must be the first essential step and leads to wider horizons.

Starting of New Practices

It may well be that, in the future, a greater number of architects will rise to associate and principal level in already established firms than has been the case in the past. That all existing practices are capable of, or are worth being preserved and that no new practices will be started up ever again is clearly utter nonsense. The starting up of new practices, however, may increasingly take the form of groupings of young architects who have already reached a reasonably high level of responsibility. They will need every assistance possible by the publication of approved and tested procedures.

The preliminary work of the RIBA in this matter deserves every encouragement, and the superb application by the 'Architects Journal' of the SfB system of classification deserves every praise. It would appear that here the AA also has a responsibility to discharge in helping young practices.

What sort of conditions do we expect to find within the foreseeable future, and which approach to architectural education would, therefore, appear to be the most promising ?

The annual increase in the gross domestic product of this country over the last five years to mid-1960, has been in the region of 2.2 per cent as compared with the countries of the European Economic Community where the increase has been around 4 per cent per annum over the five years ending 1959.

The implications for architects of a similar rate of growth in this country are very complex and require considerable study. It seems fairly certain, however, that even a modest improvement in the rate of increase together with a small improvement in the architect's share of the nation's construction work, would severely tax the existing architectural resources as they are at present deployed and manipulated.

If this factor is coupled with the demands made by the ever-increasing fund of knowledge, the desire for better standards of living and social services, and the vast increase in the world population over the next decade, the enormity of the task begins to take shape. The trend towards greater industrialisation seem inevitable.

The Visual Aspect

Under these circumstances there does not seem to be much doubt in my mind that we will want our students to learn more of principles and systems, to be able to analyse and synthesise, and that an over-concentration on the visual aspects will be insufficient to meet the needs.

Schools of architecture cannot operate in a vacuum. The method of working adopted by the offices they serve must have a decisive influence on the whole outlook and approach of the school, whether they realise it or not. If this is so, and I think it is, then a large part of the responsibilities for the school training of young architects lies in the hands of the principals at present in practice.

For the AA, where the interaction of the membership on the school is at the foundation of its very existence, the implications, I would submit, are abundantly clear. There falls upon the members of the association a duty to reappraise searchingly the working methods of their offices, and to this end the fund of basic facts which the RIBA office survey will provide should be of great assistance.

The Needs of the Community

If we are going to provide a service to the community one of the first things is to possess the ability to find out what they need as opposed to what they imagine they want. This involves research and development and systematic study of how to obtain information or, as it is more commonly known, work study; in fact, the whole problem of obtaining and writing a programme or brief.

After giving 'a far from complete list' of the knowledge that will in future have to be acquired by the student *in addition* to the normal design skills, the speaker continued: But how in heaven's name can all this, and more, be added to the present curriculum? The answer, of course, is that it can't be. But that does not mean that we can forget all about it. This knowledge has got to be taught somehow.

This can only mean one thing, as I see it, and that is the diversification of the architect's training. To avoid any misunderstanding, I use the word architect in its professional sense; I mean that different types of architects will have to be trained.

This eases the problem, but does not solve it completely, for although there will be architect-technologists or architect 'brackets' engineer or by whatever name they are known, there is still left the central problem of training the architect, around whom everything revolves; to borrow an American expression, the pivot man.

The answer must lie in establishing separate departments of studies—probably mainly post-graduate—where research in depth can be carried out, so that a solid body of ordered knowledge can be built up. The principles and systems contained in the body of knowledge thus created can be imparted to the school and also to the members. The benefits to both would be enormous, and since the actions of members in running their

practices also affect the school, we have then a self-generating cycle of events, spearheaded, as it should be, by research.

How can this be done?

Future of the AA

The recent report of the working party on the future of the AA suggested in one of its recommendations that the AA should explore the possibilities of affiliations with other bodies, especially if they could offer academic and financial advantages to the AA.

I think we must be realistic and realise that the possibility of affiliation with the National School of Building is dead and gone. So far as I can see, the only possible affiliation that really remains is with a university.

After examining the pros and cons of such a step the speaker continued: There can be no question whatsoever that affiliation with a university will bring a diminution of autonomy. The interaction of the membership and the school is our most prized possession, and we must therefore examine most carefully the effects of varying degrees of a lessening of our autonomy. It is possible that with goodwill on both sides this may not be quite so insuperable as it seems.

The alternative to affiliation with a university is not exactly a 'go it alone' attitude. It might well be a departmentalising and diversifying process with the broadening of mind and culture built in. The vital factor is of course finance; though it must be always borne in mind that we retain our autonomy.

The question of premises cannot be divorced from any assessment of the financial situation in the event of the AA not becoming part of a university. The crucial point here, as I see it, is the future of Bedford-square itself. If this were known and our length of tenure determined, and it is not inconceivable that this might be accomplished in the reasonably near future, then I can see nothing intrinsically wrong with staying here.

It is not entirely wishful thinking therefore to hope that we might be able to look forward to a time when Bedford-square became our campus for what would virtually amount to a University of Human Environment. I don't think it would be wrong to describe it as a university since the departments dealing with social studies would inevitably have wide associations with the humanities; and these could well provide the essential broadening of mind and culture.

Immediate Action

What do we do in the meantime? In my own opinion we cannot stand still; stagnation can only lead to contraction. To do this would be very bad tactics, completely contrary to the spirit of the AA, and a disastrous setback to the keenness of the new team of executive officers.

Any action that is taken must obviously fit into the major strategy. It seems to me that either approach, that is to say, affiliation or a Bedford-square campus, will require post-graduate research departments of studies.

Therefore either way there exists an urgent need to get them started and operating so that we can see what the problems are. I feel therefore that our immediate task should be to sort out and clarify the most essential growth points.

Already however we have made an offer for some additional teaching accommodation in Bedford-square, which has been accepted and the lease is in the course of preparation. We have also obtained some storage room in a building in Morwell-street. This will provide much needed breathing space and makes the concept of growth a feasibility. Furthermore, a research fellowship has been established at the AA by the polio research fund to study the problems of building for disabled persons. At the same time a post-graduate study group on urban development is under way, thanks to the initiative of the students' committee and Bobby Carter's guidance.

In addition the general purpose committee have produced a comprehensive programme of events with the unifying theme of 'The Architect and His Relationships.'

If we sustain a vigorous membership and student body who are prepared to contribute so as to make the AA the centre of their architectural life then in the exciting future, as in the past, the AA will be a truly vital force.

Civic Trust Awards

1961 Selections to be Made from London

CIVIC TRUST AWARDS are designed to stimulate the public's interest in the appearance of the cities, towns and villages in which they live, by drawing attention to the best recent contributions made to the arts of civic design and architecture. The awards are made in a three year cycle; in 1959 through the county councils; in 1960 through the cities and county boroughs; and in 1961 they will be awarded for work done in London.

During the last few years the rate of change in London has accelerated enormously offering a stimulating challenge to those concerned with all aspects of its design. New techniques, new materials and a new scale have all to be considered in integrating the new London with the London which has grown up in the past. It is to the successful examples of this new work that the Civic Trust Awards for 1961 will be made. They will cover schemes completed during the period May 31, 1958, to May 31, 1961, within the administrative area covered by the London County Council and within the boundaries of participating boroughs. Schemes may have been carried out by public or private enterprise, but must be such that they can easily be seen by the general public. In the past two years winning entries have included buildings and groups of buildings in relation to their surroundings; landscape, parks and paved areas; street lighting schemes; roads, car parks and bridges; restoration of historic buildings; kiosks, bus shelters, filling stations and the removal of overhead wires and other eyesores.

'May I submit your photo, Sir John Corbel-Pugin, to the Civic Trust as an object of architectural importance?'

Classes of Entry

Two classes of entry are invited: Class I, new buildings in the design of which respect has been paid to the character of the neighbouring buildings and natural surroundings; and Class II, schemes of other kinds for improving the appearance of the urban scene.

Independent assessors will be appointed by the Civic Trust on the advice of the president of the Royal Institute of British Architects. There will be one award in each class in each metropolitan borough. Assessors will be authorised to withhold the awards should they consider that submissions are not sufficiently worthy of public recognition, but certificates of commendation may be given in addition to, or instead of, an award at the assessor's discretion. Entries have to be submitted to the appropriate town hall, from which entry forms may be obtained, not later than December 31, 1961. Further information may be obtained from the Civic Trust, 79 Buckingham Palace-road, London, SW1.

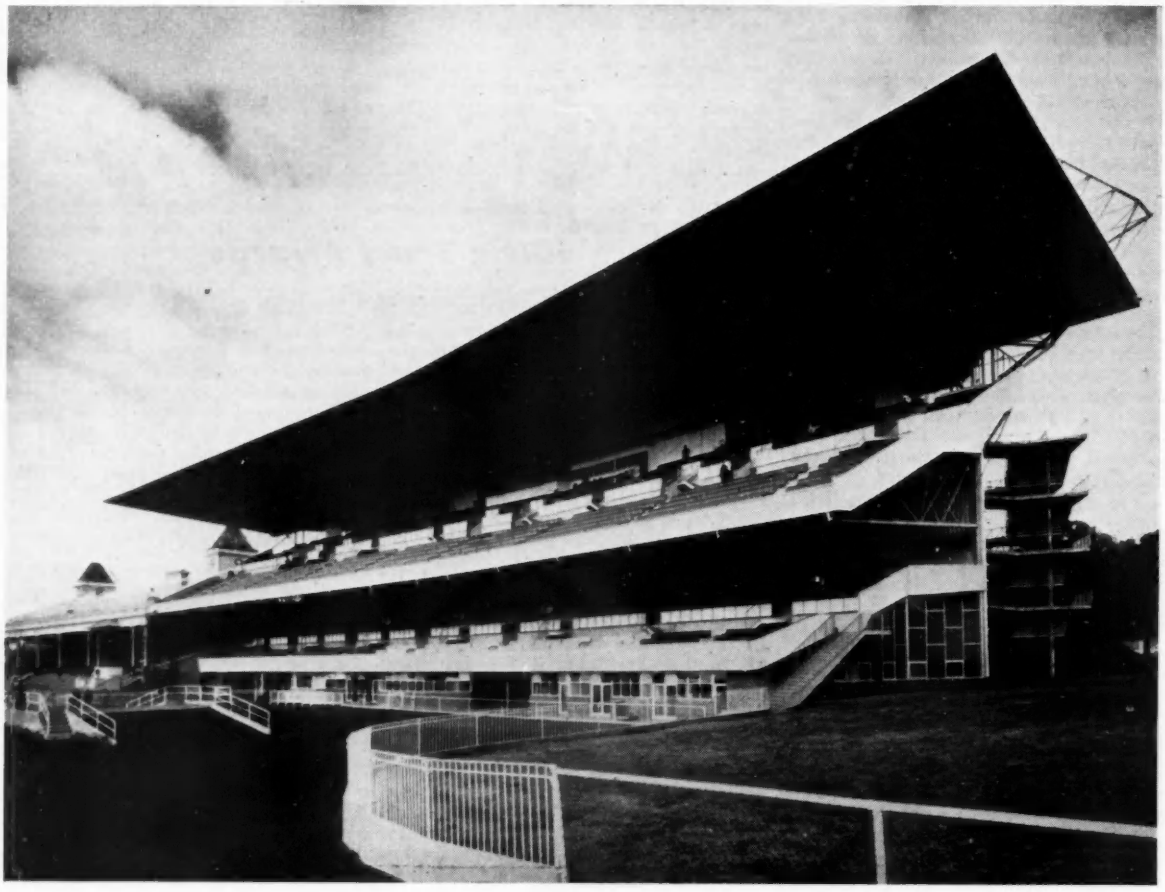
RIBA Holiday Lectures

TWO INFORMAL lectures for boys and girls are to be given on December 28 and 29 by Mr. Edward Carter, MA, ARIBA, AADipl., on 'London Now and What It Might Be.' The first lecture will deal with the growth of London and with its conditions today and the second will outline the planners' answer to the problems of London's renewal. The lectures, which are designed for those of thirteen years of age or more, will begin at 3 p.m. in the Henry Jarvis Memorial Hall at the RIBA, 66 Portland-place, London, W1. Tickets may be obtained free for both or either of the lectures from the RIBA.

Cantilevered Space Frame

For Auckland Racing Club Grandstand, New Zealand

WILSON, MOODIE & GILLESPIE, architects
GRAY, WATTS & BECA, construction engineers



IN THIS NEW GRANDSTAND at Ellerslie, New Zealand, extensive use is made of tubular steelwork for the structure and aluminium for the cladding. Here the atmospheric environment, salt-laden and with seasonal high winds, makes severe demands on any structure of this kind. The requirements called for a functional design of modern aspect with particular emphasis on structural strength, corrosion resistance and low maintenance costs.

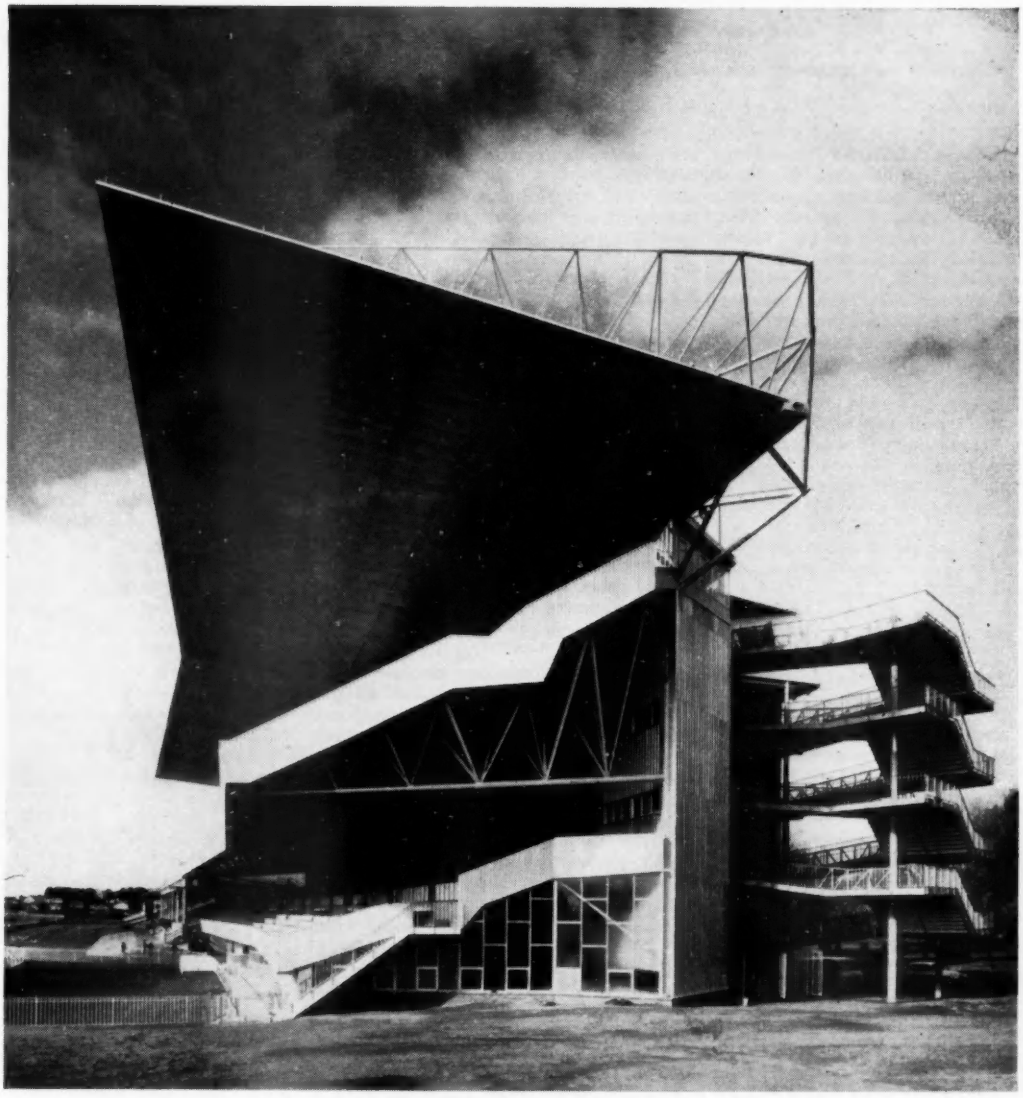
The stand consists of two seating galleries for about 4,000 people, with six storeys of amenity accommodation, offices, dining rooms, bars, totes and elevators, at the rear. The main vertical members, carried down and fastened into the natural blue stone some 30 ft. below ground level, support a welded tubular steel space frame which forms a fully cantilevered structure for both the amenity accommodation and upper seating gallery canopy, giving an unsupported projection of 45 ft. and 60 ft. respectively. Despite this comparatively light construction, a load of 400 tons was calculated for each of the main supports, including allowances for high winds and earthquakes.

The roof is sufficiently low pitched to afford weather protection and at the same time to allow rainwater to be shed to the back. Noral 'Industrial' profile stucco-embossed corrugated aluminium sheet, supplied by Alcan Industries Ltd. (formerly Northern Aluminium Company Ltd.), was used for the roof cladding. This was fixed under the roof framing and purlins, providing a flush soffite and eliminating bird nuisance by the absence of places to perch.

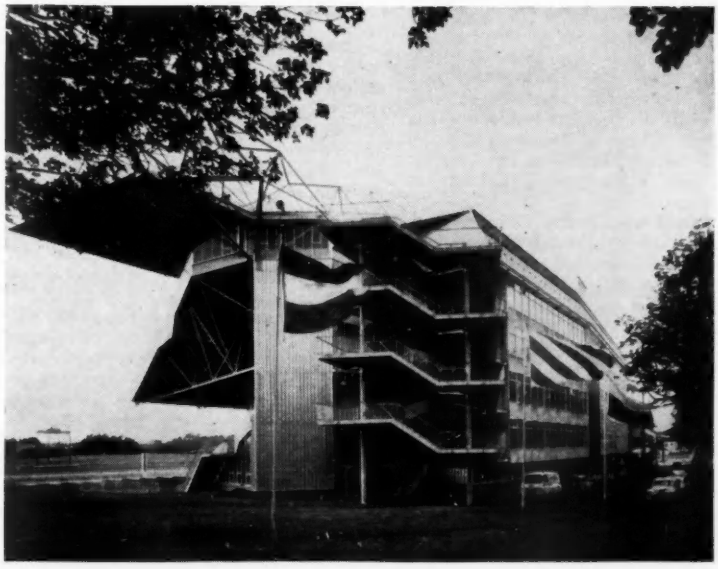
The sheets were fixed by studs fired into the purlins. Bitumen-felt strips prevent galvanic action with the zinc-sprayed steel purlins.

The back of the stand is clad with aluminium curtain walling with sprayed asbestos-cement infilling panels. The end walls are of stucco-embossed 'Snaprib' sheet, anodised gold.

Other applications utilising aluminium include balustrades of 'Industrial' sheet backed with stucco-embossed sheet on the inside; capping and associated hardware; light fittings, door handles and restaurant appliances. The cost was £500,000.



Facing page, main view of the grandstand showing the impressive spread of canopy. Above, end elevation showing the space frames supporting the canopy and upper tier. Right, steel staircase with gold anodised 'Snaprib' sheeting to the left



Motorways

BY JOHN RAE, DIP.ARCH, DIP.TP, ARIBA

1. The Theory of Motorways

ROADS have always served two functions, those of transport from place to place, and of access to buildings. From the beginning of time, or at any rate from the beginning of pathways and bridle tracks, these two quite separate functions have been fulfilled by the same network of roads. The earliest form of urban development, the village, produced the earliest example of the mixed usage, the village street. In its simplest form this is a straight street with buildings grouped along each side of it and ideally, from the point of view of a satisfactory urban scene, an important building at each end to close the vista.

This street is usually wider than the normal carriage-way of today because it is built to serve the pedestrian and his horse rather than being tailor-made for the present unit of transport, the sixteen foot by six foot motor car. It gave the pedestrian room to set up stalls outside his shop, to congregate and disperse, to walk and to talk; and where a village still uses the old building lines this wider street pattern remains.

The plan reproduced here of West Malling shows this characteristic, and also shows the interesting relationship between the early monastery and this main street. This relationship is obviously based upon walking being the prime form of transport as the whole area forms a natural pedestrian precinct, and the occasional intrusion of slow moving horse-drawn transport into this area would not disrupt its form of life. A comparison can here be made between this older plan form and the twentieth-century council housing that has been added to the village. Here the car is the prime mover, and the pedestrian has no rights at all except upon what the Americans rightly call the side-walk.

Is there Sufficient Separation?

In passing we should ask ourselves seriously if this is a sufficient separation between the fast speeds of the car and the slower ones of the foot. It could mean that the layout shown here is a bad one, and that a much better one, accepting the principle of separation, can be devised. There is also a mixture of scales: the road reflects the car, and the housing reflects the people, and neither of these are related to the old village. It might have been better to have taken the element of density, completely disregarded in this layout, and express it in the plan by creating a series of groups of houses. This would immediately get rid of the long roads coiling past the houses, and might also enable the development to have some unity with the rest of the village.

Together with this plan is a picture of one of the older houses, still standing, of the type that once lined the main street. This will give some idea of the intimate and human scale that the whole area once had. Today the present main street, rebuilt in a markedly uniform style after the original buildings were destroyed by fire, still has this intimate scale. The only disruptive element is the motor car, and the bus, which makes it quite unsafe to congregate and disperse, to set up stalls, and so on.

One day some ill-advised developer and his architect may well put up a building that will be out of scale with the present development, and away will go the whole urban unity, probably never to be regained. If this happens it will be the result of mixing buildings that are related to different units, either the car and the pedestrian, or too many or too few pedestrians. It is this quality of character, or urban unity, that flows from either the pedestrian unit, as at West Malling. or from the car unit, that creates the townscape. It is important for us to realise this before we can begin to think clearly about road systems, and above all about motorways.

The Road as a Centre

The second lesson that we can learn from history is that the road has always been a centre, and attracts people to itself. If we look at a medieval city pattern we see this very clearly, for there the market place, the busiest part of the whole town, is nothing more than an extension of the street itself.

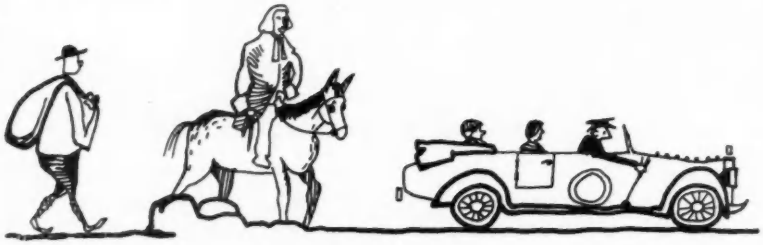
After this came the Renaissance, and travel became progressively more and more important, and horsedrawn coaches achieved speeds that even we, in these congested city days, would find hard to maintain. This naturally called for a new approach to street planning and we find, in renaissance planning, that long vistas and sweeping crescents are forming the new city pattern. They are also forming the new urban character as the intimate city of the foot passenger gives way to a city of grandeur, a city to be seen at speed. Here the unfolding of vistas, and the repetition of similar elements, creates excitement and crescendo.

People sometimes wrongly suppose that the Paris boulevards of Haussmann were the result of a purely military need on the part of Napoleon who wished to open up the city in such a way that his troops could dominate it most easily. This is far from being the whole story, for it was the rise in travel density and speed at this time that paved the way for this operation and made it possible to consider it of permanent, rather than transient value. If the boulevards had only a military significance they should be unique to Paris, and should by now be as out of date as our own military canal at Hythe. However, far from being a military anachronism they are to be found in every city that has any renaissance development in it, and have become the prototype of the present-day road patterns of the whole world. Let us consider some effects of vista planning.

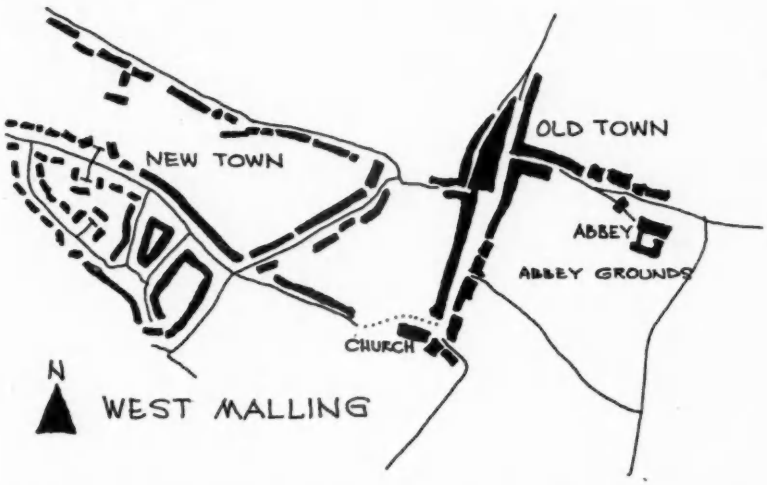
Effects of Vista Planning

First of all we find that the road, although designed for movement along its length at comparatively high speeds, is still attracting to itself the pedestrian traffic and commercial interests of the old market square. This means that the road unites rather than divides the areas of land on either side of it. In London we find that Regent-street, planned along the boundaries of two distinctly separate parts of London, drew both parts toward itself and united them. We now think of Regent-street as a centre rather than a division. In our own time the Great West Road, planned as a fast motor road into London, has become the centre of an area of factory development, and is now fulfilling the mixed functions of transport along its length and of access to buildings along its sides.

Second, we can notice the changed character of the 'centre.' Instead of being grouped, as in the village or market square, it has become elongated. The several miles of street has itself become a centre, uniformly drab and uniformly congested. This is the result of our persistently using the road for the two functions described above, and allowing ribbon development to flow with it extending the village street pattern out into the country until, impressed by its size, we say 'this is a town'; which it certainly is not. In London the situation is even worse, for the villages extended not into open country but into each other, to create a large, amorphous, ill-conceived jumble. It is necessary, if we are to drive from one side of London to the other, to use roads that are properly market squares or residential precincts.



To emphasise this point, let us realise that the only methods of uninterrupted travel open to the Londoner are the various railways and the canal. Very obviously such roads are a failure, and the sort of solution hinted at for the West Malling housing scheme might very well be applied to the town itself—and on a much larger scale than the present scheme at the Barbican. I shall have more to write on this in later articles, but we should note at the moment that towns



should have a character and urban unity, and that this should be related in scale to people, and not to motor cars. Properly the pedestrian and the motor car should meet but never mix, for it is the mixture of the long narrow motor road with the pedestrian precinct that has produced the congested shopping street —two words which, when you consider them carefully, are a contradiction in terms.

The Open Road

We now move to a consideration of roads themselves, their particular functions and their characteristics. As we have seen, roads perform two functions, and so it follows that there are two types of roads. These I shall call the Road Adjoining and the Open Road.

The Road Adjoining is a service road, an access, a link between the motorway and the building. The life of this road is related to its locality, and in particular to some form of human activity. It will serve a shop or a farm, a factory or a cathedral, a house or a cottage, and it has no life or meaning without its surrounding buildings and spaces. This road is not a motorway, and we have already seen something of its disruptive influence if it is treated as a motorway upon the shape and proportions of the 'centre.' By its very nature this is a road of beginnings and ends, of stops and starts, as it leads us from building to building, and from place to place.

The Open Road has nothing in common with the local road, for it serves one purpose only, that of movement. In order to achieve this it should be planned for a continuous traffic flow uninterrupted by control lights and junctions. Only when entering or leaving the local road systems can stops be accepted. When on this road unrestricted movement must take precedence over all other planning considerations, and if this does not happen the road has failed in its prime function. Not only is this a road of continuous movement as opposed to the stopping and starting of the Road Adjoining, but it follows that it should also be a road of no beginnings and ends. In other words the motorway should not be terminal, and although the network of this system will be planned along the lines of maximum travel density these roads should never terminate in the areas of population that have produced this traffic flow.

The idea of building a fast road between two places, such as Birmingham and London, is a false one because it introduces into the motorway system one of the major characteristics of the local road. The motorway should have a life of its own related to, but not dependent upon, centres of activity.

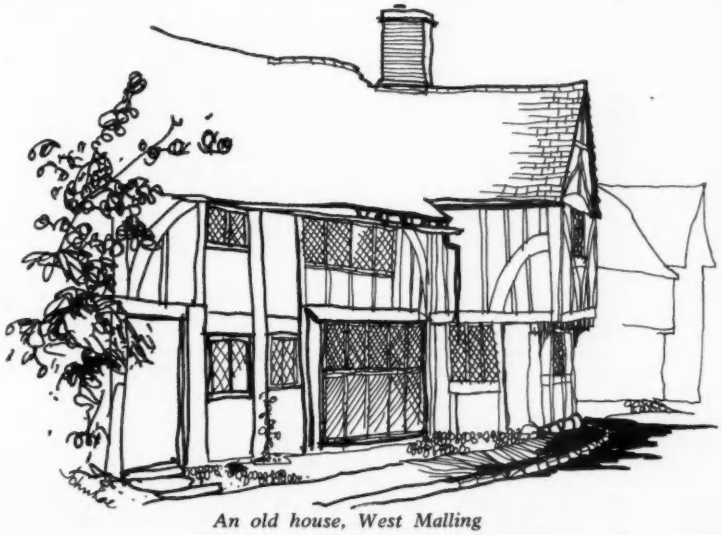
We come now to the most important part of this present article, and that is a consideration of the character of the motorway. This is true road, the road 'out of', a road in its own right, the Open Road. It is like the Roman Road, broad and straight, and built for transport. This is its main purpose, and everything else that it has to offer is of secondary importance. This road possesses a life of its own, a life of movement and speed, that is unrelated to its surroundings. It may take on a new appearance as it passes from town into country, but it does not take on a new meaning.

Mr. Toad had a clearer insight into the true purpose of the Open Road than any of his contemporaries when he sat in the dusty ruins of his canary-coloured caravan repeating 'poop, poop,' under his breath and watching the dust of the receding car. We may regret the passing of the old journey of adventure and pilgrimage, when man was firmly related to the environment through which he passed, but we cannot deny that this change has been made, and that the philosophy of Mr. Toad leads all our motoring thought.

What I now want to establish is that, while we have lost our communion with our surroundings, we have gained a new experience, almost a new dimension. This is the experience of speed travel, and with it an awareness of other travellers on the road living in this same dimension The Canterbury Pilgrims found this sort of fellowship because they were all travelling together. It was only of secondary importance that they were all going to the same place, and their conversation was unrelated both to the purpose of their journey and to their surroundings; it was travelling talk. For this reason alone, if for none other, we should be true to the philosophy of Mr. Toad, and to our own enjoyment of travel, and ensure that motorways are never ending, for an end is an abrupt denial of their purpose.

Are Motorways Necessary ?

I have one further point to make at the moment. People will sometimes question the need for the Open Road, and all that it stands for, and will put forward arguments to show that they are not necessary to our way of life. They will say that we should develop a form of planning that mixes land use and makes only short journeys by workers and housewives necessary in their normal course of living. Ideally, all such journeys should be made on foot, they will say, thus relieving the roads of traffic problems. Long journeys and haulage should be made by train. This sort of argument seeks to ignore



An old house, West Malling

the motor car, and to exclude it from planning problems. I have a lot of sympathy with it, but it is too doctrinaire and goes much too far by completely ignoring the Toad in each one of us.

If we have motor cars we shall use them for short journeys as much as we are able to, and it is no sort of answer to try to prevent this happening. More seriously, this argument is based upon a planning which removes the 'centre' and all the impetus that this gives to life, and seeks to spread a uniformity across the face of the country. I do not believe that the 'centre' will ever disappear. It has been the one constant feature of planning throughout the ages, and it remains a reality, although a congested one, in the present-day scene. Much better, I believe, to accept this 'centre' planning, and to elevate it into the doctrine of zoning, and then to plan a network of roads, both Open and Adjoining, to serve the needs of the community. It will be the purpose of the next three articles to show how this can best be done, and to point out some obvious failures.

(To be continued)

Letters to the Editor

A Challenge to ARCUK; Health Service Architects' Salaries; The Right to Demolish; Waterhouse as Orator

SIR,—With reference to 'A Challenge to ARCUK' in 'Notes of the Week' of October 20, I wonder if it is appreciated that a further mockery of The Registration Act is made by the incorporation of non-architects in the name of a firm practising over the title of architects? This must also be against the interests of the profession and I would say the objects of the Act. But on this point the Act as it stands is in conflict with itself.

G. C. BODKER [ARIBA],
27 Werter-road, SW15.

Health Service Architects' Salaries

SIR,—May I reply to Mr. Ben Smith, staff side secretary of the Whitley Councils for the Health Services (Great Britain), whose letter appeared in 'The Builder' of October 27?

Mr. Smith is right in claiming that architects are represented on Committee 'F' of the Whitley Council for the Health Service, this Committee (which forms part of the Professional and Technical Council 'B') being the appropriate body to deal with negotiations for engineers, surveyors and architects at Hospital Board level. But whether this constitutes 'adequate' representation is surely a matter of opinion. As the Association of Official Architects (AOA) Executive understand it, the Staff Side of Committee 'F' has fourteen representatives on it. Of these, seven representatives are chosen from the organisations listed in our Press statement ('The Builder' of October 13). The remainder are allocated to NALGO and, apart from the Staff Side Secretary, six NALGO members sit on the committee. As it happens, at the present time one of these is a quantity surveyor, two are engineers and three are architects. It therefore seems strange that less than half the representatives on this Committee represent these officers. It seems even stranger that, when representation for a group of professional officers is made available, where there was none before (as in the case of AOA), the members should not have the right to have these representatives speak for them on the committee. There is, at present, no inherent right in the architects sitting on committee 'F' remaining there; they sit on it as NALGO members. If no architect NALGO member were available when a place has to be filled, it could be filled by any other appropriate NALGO representative. Similarly, the engineers do not sit on the committee by right as engineers, nor do the surveyors. Whilst NALGO is certainly entitled to representation, so are the professions for whom this committee is supposed to negotiate.

HANS G. EISNER,
Public Relations Officer, AOA,
2 The Close, Matlock, Derbys.

'The Right to Demolish'

SIR,—Mr. K. T. Jolley's article 'The Right to Demolish,' in 'The Builder' of October 20, is interesting, if somewhat misleading. Your correspondent states: 'This means the demolition of obsolete structures before the new buildings can rise, and the Public Health Act, 1961 (which becomes operative on October 3), brings the control of demolition completely under the Local Authority.'

Section 29 of the Act, which relates to 'Powers of a Local Authority in relation to demolition' are contained within Part II, and Section 86 (2) (A) states that Part II shall come into force on a date as the Minister may by order contained in a statutory instrument appoint, and as far as I am aware no such date has as yet been appointed.

His later paragraphs referring to sections 21, 24 and 26, of the Public Health Act 1961, should read sections 24, 27 and 29 respectively, as it would appear that your correspondent is quoting from the Public Health Bill and not from the Act itself.

S. MCDONALD,
Chief Building Inspector,
St. Helens, Lancs.

SIR,—I read with interest the article in 'The Builder' of October 20, 'The Right to Demolish,' by Mr. K. T. Jolley. Two points have, however, arisen over the paragraph where Mr. Jolley quotes Section 21 of the Public Health Act, 1961, as being an extension of the powers of Section 58 of the Public Health Act 1936. First, should not the Section of the new Act be No. 24 and not, as quoted, 21? Second, does this Section of the new Act repeal Section 58 of the Public Health Act 1936 or are the two to be used in conjunction? Some light on these points would be very much appreciated.

DAVID MORGAN,
34 Pandy-close, Merthyr Tydfil.

Waterhouse as Orator

SIR,—Miss Frances Collingwood's article in your last issue on the Centenary of the birth of Paul Waterhouse must have revived for some of your older readers vivid memories of him as a speaker. The architectural profession has produced many able lecturers and speakers and, within living memory, at least two orators—Beresford Pite and Paul Waterhouse. I had the pleasure of hearing both and can testify to their eloquence. Pite, with his fine physique, leonine head and vibrant voice, was perhaps the more impressive personality; Waterhouse, I think, struck the deeper note of oratory.

His most moving speech, which I had the privilege of hearing, was perhaps that made at the Wren Bicentenary Banquet on February 26, 1923. The peroration gives 'a taste of his quality.' In my mind's eye I can still see the absorbed expression on the face of the late Lord Balfour, himself no mean orator, who with many other distinguished men was sitting at the top table, as Waterhouse concluded with the following words:

'I am no friend to any modern psychic methods of approach to the departed; the world of mediums is to me intolerable, and I detest that zest of unhallowed inquiry which taps at the backdoor of Purgatory; but I find it impossible to believe that the spirit of a just man made perfect is perforce insensible to the thoughts of his fellow beings on this earth. It is incredible to me as a Christian and an architect that the united homage of today's ceremony, and the full-voiced expression of our unanimous emotion, can go unheeded and unheard. Therefore it is that with your utterance as well as my own I end with the cry, "Christopher, we salute thee".'

G. J. HOWLING [HON. ARIBA],
Wimbledon, SW19.

The Pilgrim Trust

THE THIRTIETH ANNUAL REPORT of the Pilgrim Trust, 1960, records that the largest and most important scheme of restoration assisted by the trustees during the year was for the repair of historic buildings in the University of Cambridge. Eight Colleges were helped—Downing, Magdalene, Pembroke, Queens', St. Catharine's, St. John's, Sidney Sussex and Trinity Hall, the total grant being £38,350.

Other grants for preservation were to Bradford Cathedral, Fressingfield Church, Suffolk, Abbey Dore Church, Hereford, St. Mary's Church, Warham, Norfolk, St. Vedast, Foster Lane, London (organ), Farnham Castle, Surrey, the Old Dean-Farnham, Surrey, Cley Windmill, Norfolk, ery, Salisbury, and churches in Scotland and Wales. Secular buildings assisted included Westminster School, Boston Manor House, Brentford, Willmer House, buildings in Kings Lynn, Tonbridge Castle, Kent, Lord Leycester Hospital, Warwick, and a number of ancient almshouses. Photographs of some of these buildings are given.

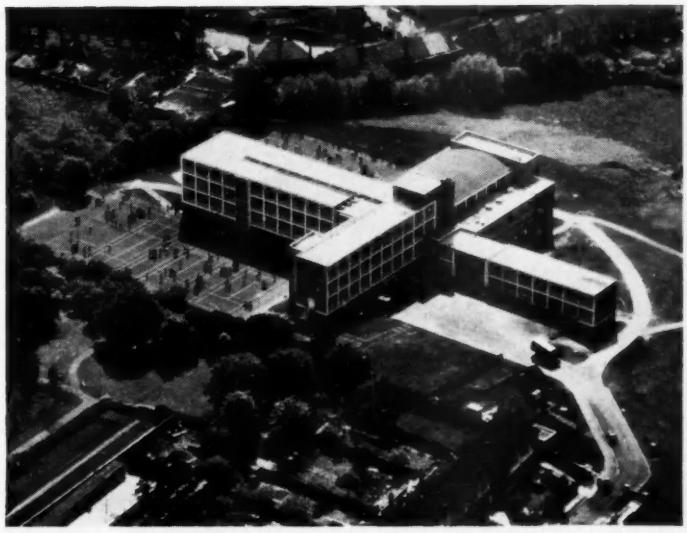
The year's investment income exceeded the £200,000 mark for the first time.

Secondary School, Streatham

F. G. BROADBENT & PARTNERS, architects
J. F. G. HASTINGS, ARIBA, partner in charge
W. H. GAZE & SONS LTD., general contractors

classroom wing from south-east

aerial view from north-east

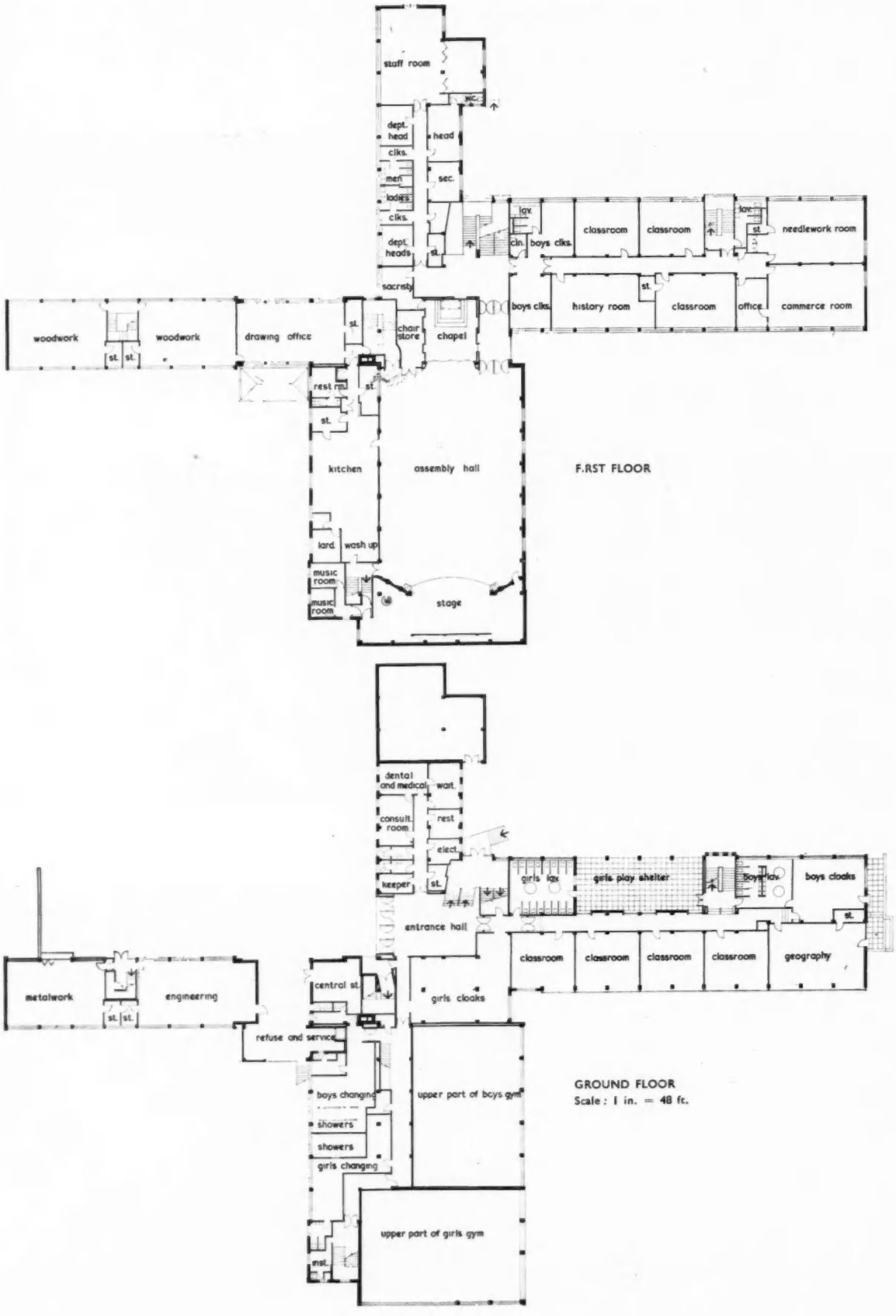


BISHOP THOMAS GRANT is a mixed secondary modern school for 810 pupils. The school was commissioned by the RC Diocese of Southwark, and by a special agreement with LCC it comes within MoE's building programme.

Advantage has been taken of the steep slope, 1 in 10, to produce a very compact plan. The main vertical circulation is at the centre of a cruciform plan with the assembly hall at first floor level above the two gymnasia.

The classroom wing, four storeys high, runs from north to south with classrooms both sides of a central corridor so that all rooms receive some sunshine during the day. The art room, needlework, commerce and housecraft rooms are at the southern end.

The gymnasia are approached by gallery access at ground floor level. The changing rooms, also at gallery level, have direct access both to the stage above and the gymnasia below. The boiler house and kitchen form part of this nucleus. A chapel opens directly into the assembly hall at the opposite end to the stage.


staff room
wc.
dept. head
head
clks.
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men
ladies
clks.
dept. heads
st.
sacristy
lav.
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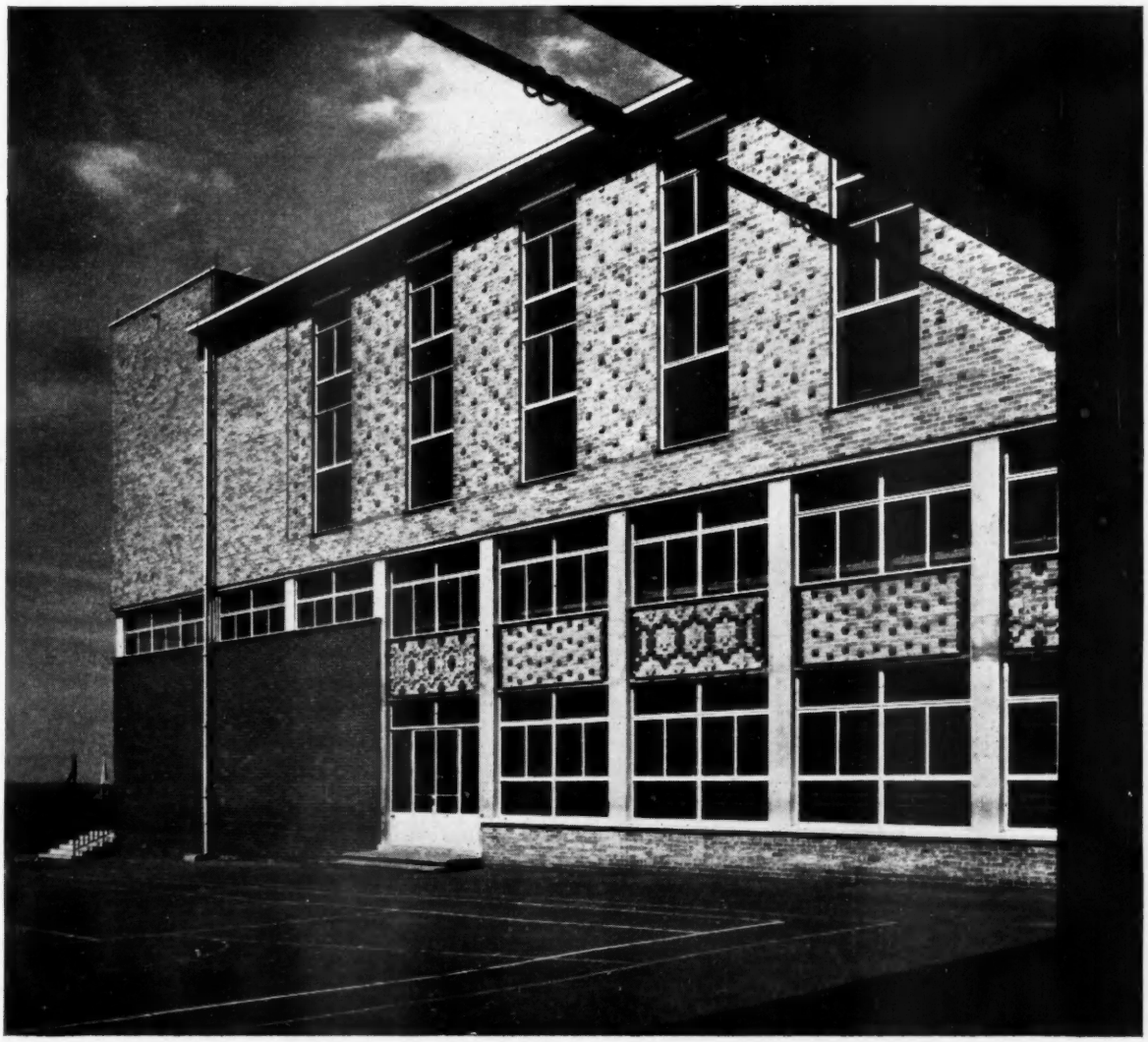
boys clks.
classroom
classroom
lav.
st.
needlework room
boys clks.
history room
st.
classroom
office
commerce room
woodwork
woodwork
drawing office
st.
st.
st.
chair store
chapel
rest rm.
st.
st.
kitchen
assembly hall
F.RST FLOOR
lard.
wash up
music room
music room
stage
dental and medical
wait.
consult. room
rest
elect.
keeper
st.
girls lav.
girls play shelter
boys lav.
boys cloaks
st.
entrance hall
classroom
classroom
classroom
classroom
geography
metalwork
engineering
st.
st.
central st.
girls cloaks
refuse and service
boys changing
showers
showers
girls changing
upper part of boys gym
upper part of girls gym
inst.
GROUND FLOOR
Scale : 1 in. = 48 ft.

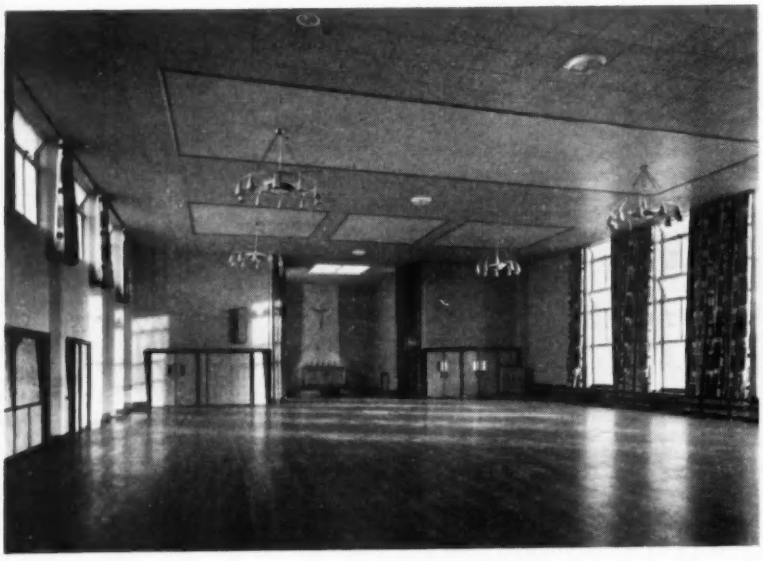
Covered shelters are provided at ground floor level opening onto the girls' playground on the east, and at lower ground floor level on the west, onto the boys' playground. Cycle store accommodation is also provided there.

The contract for the school was placed in January, 1957, and the school opened in September, 1959, the two gymnasia being handed over two months later.

Reinforced concrete was chosen for the structural frame for the bulk of the building, with structural steel for the larger spans of the assembly hall and gymnasium wing with an expansion joint between the two. Site investigations showed that the clay subsoil extended to a considerable depth and local knowledge suggested that the hillside was gradually sliding towards Streatham Station. Piled foundations were designed to take the required load and to pin the building to the

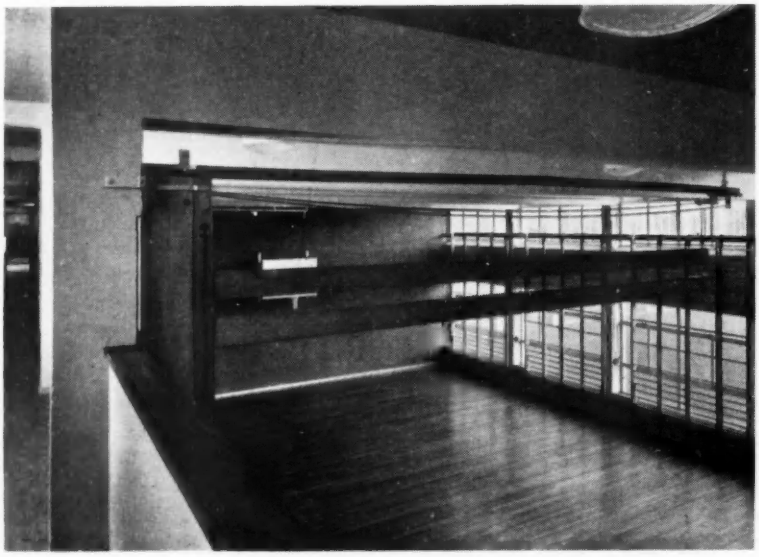
Right, assembly hall wing from boys' playground. Below, detail view of patterned brickwork panels





Secondary School, Streatham

Above, assembly hall towards the chapel. Above right, view towards stage. Right, main entrance hall. Below, boys' gymnasium from gallery



hillside. Contract price: £279,277; final cost: £290,000; area per cost place: 74.5 sq. ft.; cost per cost place: £280, including £11 per place for furniture.

Quantity surveyors: Selby & Sanders; structural engineers: Thomas Bedford & Partners; heating and mechanical engineers: H. J. Knox, MIHVE; electrical engineers: LCC Electrical Dept.; site layout: LCC Parks Dept.

sub-contractors & suppliers:

Reinforced concrete work: Helical Bar & Eng. Co. Ltd.; *piles:* Franki Compressed Piling Co. Ltd.; *structural steelwork:* Fleming Bros. Ltd.; *metal window, roof glazing, etc.:* C. E. Welstead, Ltd.; *domelights:* T. & W. Ide Ltd.; *heating instn.:* Young, Austen & Young Ltd.; *cold water services:* F. J. Baynes & Co. Ltd.; *gas instn.:* South-Eastern Gas Board; *electrical instn.:* W. H. Gaze & Sons Ltd.; *reconstructed stonework:* Cooper, Wettern & Co. Ltd; *quarry tile paving, wall tiling & gripfoot floor tiling:* Builders Merchants Ltd.; *hardwood flooring:* Vigers Bros.; *cork floor tiling:* Lino Tile Co. Ltd.; *terrazzo:* Art Pavements & Decorations Ltd.; *lino flooring, furniture, curtains:* LCC Supplies Dept.; *facing bricks:* Finniss, Ruault & Nocholls Ltd.; *felt roofing:* Feild & Palmer Ltd.; *barrel roof:* D. Anderson & Son Ltd.; *sanitary fittings:* Stitsons Sanitary Fittings Ltd.: *w.c. cubicles:* Henry Hope & Sons Ltd.; *letter plate & box & cloakroom equipment:* A. J. Binns Ltd.; *ironmongery:* F. Knight & Co. Ltd.; *suspended ceilings:* Anderson Construction Co. Ltd.; *suspended ceiling grounds:* Steel Bracketing & Lathing Ltd.; *slate cills:* Bow Slate & Enamel Co. Ltd.; *fencing:* Fencing (Shepperton) Ltd.; *lightning conductors:* W. J. Furse & Co. Ltd.; *rolling shutter:* Shutter Contractors Ltd.; *granolithic paving, laboratory fittings, wrot ironwork, sliding doors, partitions, etc.:* W. H. Gaze & Sons Ltd.; *incinerators:* Wm. Snugg & Co. Ltd.; *venetian blinds:* Tidmarsh & Sons; *reredos:* G. Jackson & Sons Ltd.; *Perspex name plates:* Drakard & Humble Ltd.; *playground:* LCC Supplies Dept.; *planting & garden areas:* Kinman (Contractors) Ltd.; *illuminated cross:* Neon (Contemporary) Ltd.; *paint supplies:* Hadfields (Merton) Ltd.; *sculpture:* Miss Rosamund Fletcher.

News of the Week

Builders' Golf Dinner

SOME OF THE BEST GOLF of the season was played at the Savoy Hotel on Friday last, where the LMBA Golfing Society held its 12th annual dinner under the benign chairmanship of its captain, Mr. Percy Bates, who presided over a company of more than a hundred members and guests. The latter, well teed-up, drove straight down the course of an excellent dinner, and approached the green of the speeches in high fettle. Veracity compels to say that, taken as a whole, this has been in better condition but one remembers with pleasure Mr. Steve Statham (captain of the RIBA GS) who holed out in one with his story of the Rev. Dai Rees and Father Weetman; the captain himself who accounted for the society's year as cleanly as he hits his iron shots; Mr. Ernest Cook, retiring captain, who took the guests off into the empyrean, put them into orbit round the sun of friendship and, successfully, brought them back again to terra firma; and Sir Bruce Wycherley, who expressed (perhaps a little more solemnly than the occasion demanded) the guests' pleasure at finding themselves in such company. Mr. Les Henning's stories (many of which will themselves surely go into orbit round the building world), helped to this most enjoyable evening on which the organiser, who is also captain and secretary, receives warm congratulation. Mr. Frank Lawsons (past captain) said that, when tired of building, the job of toastmaster is one at which he would rapidly be playing off scratch.

Beer and Housing

ACCORDING TO a family expenditure survey report for 1957-59, prepared by the Ministry of Labour, the average household in Britain spends more on alcoholic drink, tobacco and cigarettes than on housing. Some may consider this a reflection on the English as sensible, steady going people who are prepared to forgo comfort for the delights of beer drinking. We are inclined to the view that these statistics reflect more the exorbitant price of those luxuries, made so by heavy taxation and duties. It does prove two things however: first, that whatever the cost 'candy is dandy but liquor is quicker' and the English imbiber, though not over-indulgent, will have his pint of ale; and second, despite the cancer scare, the filter tip manufacturers have provided an antidote that appears to satisfy.

Opening up the Thames

THOSE WHO REGARD the Thames as an important feature of London and its surroundings, whether this be for utilitarian or aesthetic reasons, must be dismayed at the condemnation by the Royal Fine Art Commission of a scheme to open up the river at Greenwich. The local council proposed to create a promenade and open space along the river between the pier and generating station by embanking out into the river. The scheme was approved by various official bodies but the Admiralty required that RFA approval should be obtained. In their report the RFA said that, in their opinion, the Royal Naval College buildings would be divorced from the river (the council considered it would improve the view of the college) by an expanse of open space at high tide, and that at low tide a length of high wall would dominate the scene. The RFA did, however, hope that the part of the scheme not in front of the college would be carried out. Walls are necessary to hold back the water from this nautical seat of learning and tides must flow. It seems ironical that nature should indirectly prevent the people of Greenwich and its visitors from enjoying such increased amenities.

Honorary LLD for Sir William Holford

AT A SPECIAL CONGREGATION for the conferment of honorary degrees, held in the Philharmonic Hall, Liverpool, on October 28, Professor Sir William Holford, ARA, MTPI, president of the Royal Institute of British Architects, was awarded the honorary degree of Doctor of Laws, University of Liverpool.

AA on Higher Education

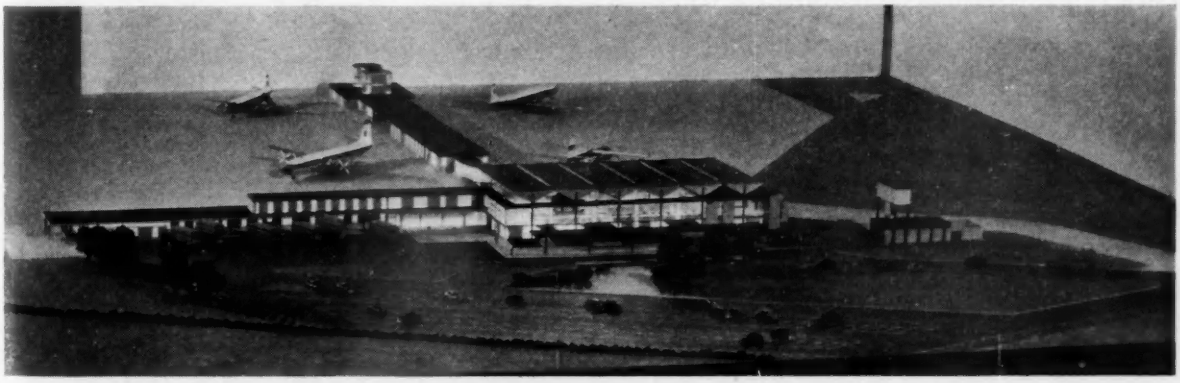
AT THE INVITATION of the Committee on Higher Education, which was set up by the Prime Minister early this year, and of which Lord Robbins is Chairman, the Architectural Association Council has prepared a memorandum of evidence containing their comments on a variety of questions presented by the Committee. On October 25 Mr. Anthony Cox, vice-president and chairman of the schools committee, the director and the principal attended the Committee to give verbal evidence. The chairman has invited the AA to assist them further by providing another statement in answer to various specific questions.

Erith Rebuilding Project

A PROJECT to rebuild completely the town centre of Erith has been approved by the borough council after considering a number of alternative projects. The scheme adopted has been submitted by Park Investments Ltd., 98 Park-lane, London, W1, and involves the reconstruction of more than 25 acres at an estimated cost of nearly £6m.

The plan incorporates the construction of a large departmental store and a supermarket with car parking space for 750 vehicles. In addition about 100 shops together with flats and maisonettes will be erected, as well as banks, public houses, office blocks, club facilities and a garage and filling station. Other features of the project will be riverside point-block flats and a terraced promenade, and a traffic free shopping precinct. The architects are Richard Seifert & Partners, 34 Red Lion-square, London, WC1.

ALDERGROVE CIVIL AIR TERMINAL, BELFAST, *for which tenders have now been invited. The new buildings are estimated to cost about £720,000. The main block, as the model shows, will be clad principally in glass, with solid grey brick panels, and is simple in design. The architects are Messrs. W. H. McAlister & Partners of Belfast, the design team being Mr. W. H. McAlister, ARIBA, MRIAI, Mr. J. B. Kennedy, DA, ARIBA, and Mr. J. B. Fitzgerald, DA, ARIBA. Messrs. Yorke, Rosenberg and Mardall acted in an honorary capacity as planning consultants. The mechanical and electrical consultant is Mr. J. R. W. Murland, BSc, MICE, of Belfast; the civil engineering and structural consultants are Messrs. Clarke Nicholls & Marcel, of London and Belfast; and the quantity surveyors, Messrs. W. H. Stevens & Sons, of Belfast. The apron is designed by the Ministry of Aviation. All contract arrangements together with the supervision of construction will be carried out by the Air Ministry on behalf of the Ministry of Aviation*



IAAS President's Engagements

MR. PETER RUSSELL WALKER, FRIBA, AADIPL., president of the Incorporated Association of Architects and Surveyors is to visit the South Wales and Monmouthshire Chapter of the association on November 3 and 4. On November 11 he will visit the Liverpool and North Wales branch and on November 24 he will attend the annual general meeting and dinner of the Western Counties branch at the Royal Hotel, Bristol. In December his official engagements include an 'At Home' to the Thames Chapter at the White Hart Hotel, Reading on December 1, and the Scottish branch's annual dinner and dance at the Grand Hotel, Glasgow on December 16.

Cathedral Design Revised

MODIFICATIONS to the design of the new Liverpool Roman Catholic cathedral have been completed by the architect, Mr. Frederick Gibberd, CBE, FRIBA, ARA, and work is planned to commence in January and be completed by 1966. This was announced by the Archbishop of Liverpool when the revised model was shown on October 29. The central tower has been widened and reduced in height by 30 ft. in order to give more light over the altar, and the size of the crypt has been doubled.

RICS Christmas Holiday Lecture

THE CHRISTMAS HOLIDAY LECTURE for senior pupils to be given at the Royal Institution of Chartered Surveyors on Tuesday and Wednesday, January 2 and 3, 1962, is on 'Map-making Today.' The principal speakers will be Lt.-Col. D. L. Griffith, OBE, BA, Commandant of the School of Military Survey, Newbury, and Col. W. A. Seymour, BA, ARICS, Head of the Field Survey Division, Ordnance Survey, Chessington.

Leverhulme Research Awards

APPLICATION is invited for fellowships and grants in aid of research. These awards are intended for senior workers of established position and are limited to British-born subjects normally resident in the United Kingdom; in exceptional circumstances the trustees may waive the condition as to residence. No subject of inquiry is excluded from consideration but preference is given to subjects in which existing provision for research is inadequate.

The duration of the awards does not extend over more than two years or less than three months and the amount depends on the nature of the research and the circumstances of the applicant. Application must be made on form 'F' obtainable together with further details from the Secretary, Leverhulme Research Awards, St. Bridget's House, Bridewell-place, London, EC4. The closing date is December 31, and results will be announced in May. The awards will normally date from September 1, 1962.

CEMA Soccer Activities

ON OCTOBER 25 at Hinchley Wood, The College of Estate Management gained revenge for their 2-0 soccer defeat in January at the hands of the RICS when they beat the Chartered Surveyors 3-1. The Surveyors were unable to take advantage of playing down the slope in the first half and soon found themselves two goals down. This proved to be the margin of the result for, in the second half, each team scored once.

On November 8 the RICS play the RIBA at soccer for the first time. The match will be played at the South West Essex Technical College ground at Chigwell. The kick-off is at 2.30 p.m. Spectators will be welcome.

Professional Announcements

MESSRS. MUNCE AND KENNEDY, architects and consulting engineers (Belfast and London) have established an office in Dublin in association with MR. COLM DIXON, ARIBA, MRIAI, at 62 Merrion-square south, Dublin 2 (tel: 61361), where they will practise under the title of 'MUNCE AND KENNEDY, chartered architects and consulting engineers, in association with COLM DIXON, ARIBA, MRIAI.' They will be pleased to receive trade literature at the new address.

MESSRS. CYRIL SWEETT & PARTNERS announce that by mutual consent MR. WILLIAM STANLEY KIRKBY ceased to be a partner on October 31. MR. GEOFFREY ROBERT BROWNE, ARICS, has been made a partner with effect from November 1. MR. RAYMOND H. HOWARD, ARICS, and MR. MAURICE W. PARROTT, ARICS, have been appointed associates with effect from the same date. The title of the firm remains unchanged.

MESSRS. BAKER, MALLETT AND PARTNERS, quantity surveyors, of Grosvenor Gardens House, Grosvenor-gardens, London, SW1, have opened an office at 88 Thorpe-road, Norwich, Nor. 04T. The telephone number, however, is Norwich 20832 and not as previously stated by us.

MESSRS. CALVER AND ROBINSON, chartered quantity surveyors, of Bank-chambers, 40 High-street, Rochester, Kent, have opened a London office at 36 Victoria-street, SW1, and will be pleased to receive trade literature.

J. A. STORY & PARTNERS, land, engineering, hydrographic and mining surveyors, of 8 Laurence Pountney-hill, EC4, have established a branch office in Dar-es-Salaam under the title J. A. STORY & PARTNERS, EAST AFRICA. The address is PO Box 2639, Dar-es-Salaam. MR. P. J. TAYLOR, ARICS, is initially taking charge of the new office.

A Hundred Years Ago

From 'The Builder' of Nov. 2, 1861

GAS.—The Londoners in the City are greatly aggrieved on account of being deprived, by the operation of the Metropolis Gas Act, of the privilege which they have enjoyed for the last ten years of being supplied with gas at a cheaper rate than the inhabitants of other parts in London. Public meetings, and other modes of agitation, are being used to get relief from what is held a grievance, and a remedy for a 'betrayal.'

Coming Events

FRIDAY, NOVEMBER 3

INSTITUTION OF STRUCTURAL ENGINEERS (SOUTH WESTERN COUNTIES BRANCH).—Chairman's address, by Mr. J. D. Norfolk. Grand Hotel, The Hoe, Plymouth. 6 p.m.

MONDAY, NOVEMBER 6

SOCIETY OF ENGINEERS.—'The "Untouchable" Therm,' some thoughts on design trends in central heating and hot water supply installations, by Mr. G. E. Cox. Geological Society, Burlington House, W1. 5.30 p.m.

TOWN & COUNTRY PLANNING ASSOCIATION.—'Recent Developments in Swedish Housing,' by Mr. S. H. Senkowsky. 28 King-st., WC2. 6.30 p.m.

SOCIETY OF BUILDING & CIVIL ENGINEERING STUDENTS.—Lecture: 'Management in Building,' by Mr. R. J. Hollings, Nottingham & District Technical College, Burton-st.

TUESDAY, NOVEMBER 7

INSTITUTION OF CIVIL ENGINEERS.—Presidential address, by Sir George McNaughton. Gt. George-st., SW1. 5.30 p.m.

HOUSING CENTRE TRUST.—'Two to Five in High Flats,' by Mrs. I. White, MP. 13 Suffolk-st., SW1. 6 p.m.

RIBA.—'New Strategies for Local Authority Building,' by Mrs. Elizabeth Layton. 66 Portland-pl., W1. 6 p.m.

INSTITUTION OF STRUCTURAL ENGINEERS (NORTHERN COUNTIES BRANCH). — 'What is Structural Engineering?', by Mr. P. D. Newton. King's College, Newcastle. 6.30 p.m.

LONDON BUILDERS' FOREMEN'S ASSOCIATION.—Lecture on 'The Constitution of the Clatworthy Dam,' by Mr. J. H. Abrams. Caxton Hall, London, SW1. 6.30 p.m.

INSTITUTE OF BUILDERS (MIDLANDS BRANCH).—First annual dinner. The Grand Hotel, Birmingham. 7.15 p.m.

EWELL TECHNICAL COLLEGE (DEPT. OF BUILDING & SURVEYING).—Annual prize distribution. Presentations by Mr. Peter Trench. Reigate-rd., Ewell, Surrey. 8 p.m.

NATIONAL HOUSING AND TOWN PLANNING COUNCIL.—61st national conference and exhibition. Scarborough. (Until Nov. 9.)

WEDNESDAY, NOVEMBER 8

COMBUSTION ENGINEERING ASSOCIATION (SCOTLAND).—Meeting: 'The Design and Installation of Industrial Boiler Plants.' Grand Hotel, Charing Cross-st., Glasgow. 10 a.m.

BUILDING CENTRE.—Forum: 'Trade Literature for the Building Industry.' Store-st., WC. 6 p.m.

REINFORCED CONCRETE ASSOCIATION. — 'Shrinkage and Creep in Concrete,' by Mr. A. M. Neville. RSA, John Adam-st., WC2. 6 p.m. (preceded by AGM at 5.45 p.m.).

ARCHITECTURAL ASSOCIATION. — Informal dinner for Prof. Walter Gropius and discussion on the Professor's paper, 'The Architect in Society.' 34/36 Bedford-sq., WC1. 7 p.m.

THURSDAY, NOVEMBER 9

INSTITUTION OF STRUCTURAL ENGINEERS (WESTERN COUNTIES BRANCH).—Joint meeting with Institution of Civil Engineers, south-western association: 'Engineer Support to the Christmas Island Nuclear Tests of 1958,' by Brig. R. B. Muir. University Walk, Bristol. 6 p.m.

INSTITUTION OF STRUCTURAL ENGINEERS.—Joint meeting with Royal Engineers: 'The Development of Engineer Equipment for the Army,' by Brig. H. A. T. Jarrett-Kerr. 11 Upper Belgrave-st., SW1. 6 p.m.

HULL UNIVERSITY.—'Town and Traffic in Britain,' by Mr. W. K. Smigielski. (One of six weekly lectures entitled: 'Towards New City Centres.') Hull University, Room A1. 7.30 p.m.

FRIDAY, NOVEMBER 10

INSTITUTION OF STRUCTURAL ENGINEERS (SOUTHERN BRANCH).—Chairman's address, by Mr. J. R. Lowe. Southampton University. 6.30 p.m.

BUILDING SURVEYORS' INSTITUTE (REGION 4—WALES).—'The Redevelopment and Planning Proposals in the City of Cardiff,' by Mr. E. C. Roberts. The Blind Institute, Newport-rd., Cardiff. 7.30 p.m.

RIBA CRICKET CLUB.—Annual dinner (preceded by AGM at 6.15 p.m.). Architectural Association, 36 Bedford-sq., WC1. Sir William Holford, guest of honour. 7.30 p.m.

INSTITUTE OF QUANTITY SURVEYORS (TYNE/TEES CHAPTER).—Annual dinner and dance. Redhill Hotel, Durham. 8 p.m.

THE ISLINGTON SOCIETY.—Exhibition 'Eye for Islington.' Electricity Showrooms, 341 Holloway-rd., London, N7.

SATURDAY, NOVEMBER 11

INSTITUTE OF BUILDERS' DISCUSSION CLUB (LEEDS AND DISTRICT CENTRE).—Annual dinner and dance. Griffin Hotel. Leeds. 8 p.m.

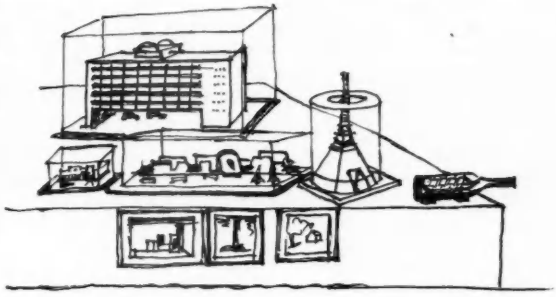
More Everyday Things

BY ARTHUR W. KENYON, CBE, FRIBA

66. Architectural Models (2)

THE AMATEUR model-maker, having turned professional, can no longer afford the luxury of doing his work single-handed. He has gone into a trade where work is done in teams, and he has also gone into a business where his price must be competitive.

I am pleased to see the original firms of model-makers still to the fore, but new ones are springing up all the time, and today instead of taking your plans to the only model-maker you know, you had better send them to two or three and obtain prices before you commit yourself. The cost of these expensive toys has become a major item in the total project, and whose responsibility it is to pay can sometimes cause embarrassment. Perhaps the day will come when the cost will be pushed into the bill, along with other awkward charges; although I hardly think the model-makers would take kindly to this if it meant they had to await the letting of the contract before receiving payment.



But, however the model is to be paid for, it is usually a very exquisite piece of workmanship when it eventually arrives on the board room table. The tiny motor cars are all there in identifiable makes; the student is there strolling along his cloister; the ships are on the river and the trees are in the park: I'm not sure about God in his heaven, but certainly all's right with the model.

And here a word about periscopes. I have only once seen a periscope produced with the model and this was at a Dutch exhibition, but I would earnestly advocate a more widespread use of periscopes. It is difficult for even the initiated to appreciate the true scale of a model without one, and viewed with the naked eye from above, the whole concept can be quite dangerously misleading.

Next in importance to the problem of the cost of the model, comes the problem of its physical presence. I was in a real estate office the other day where I found that a room 20 ft. by 20 ft. was given up entirely to the display of models of buildings to come or already with us.

I can think of nothing more depressing than a display of other people's models as shown, for instance, at the RA exhibition. I personally would like to see this form of entry abolished at the Academy, for no building was even intended to be seen in isolation, or in the middle of a group of irrelevant others, all to different scales, sheltering under cases reminiscent of the Victorian posies and stuffed birds in their domed glass covers, although unlikely to accrue the same value in antiquity.

When the time comes to discard these architectural treasures, who is bold enough to crush them into the dustbin where they belong? Yet it must be done. When I have had the courage to take part in these last rites, I have wondered what the dustman was going to think when he saw my building poking up in the middle of his garbage: but on reflection I have sadly acknowledged that there was little possibility of his recognising it as anything more than the garbage itself of which it forms a rightful part. A few chosen models may survive, as the noted wooden model of St. Paul's has survived, and the dolls' houses at Bethnal Green, but for most of our treasures, I fear, it must be dust to dust.

Stoneworking in Majorca

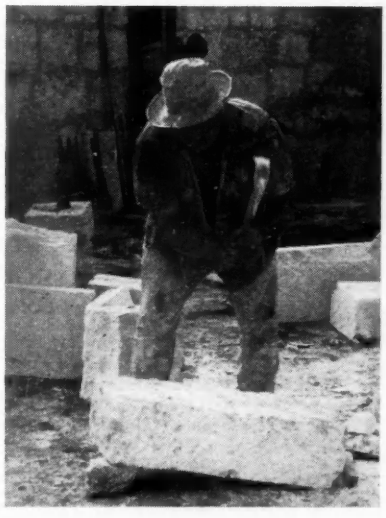
SIR,—We are so used to machines doing our heavy work that we seldom realise that in other countries they are not quite so fortunate.

I stood and watched this workman on the island of Majorca. He was breaking large stones, 2 ft. 6 in. by 1 ft. 3 in. approximately, in half with regular and monotonous ease.

I was fascinated by the speed with which he split them, and after seeing three broken I decided to time him. The whole operation took four minutes.

The stones were being used in the building of a shop.

ARNOLD HOLT,
60 Oakworth-street,
Blackley, Manchester, 9.



The final breaking of the stone is accomplished by heavy strokes of an axe, along the groove on one side only of the stone (see letter)

Queen to Attend Coventry Service

THE QUEEN will attend the service of consecration of Coventry Cathedral on Friday, May 25, 1962, it was announced from Buckingham Palace on October 26. The Queen laid the foundation-stone of the new cathedral on March 1, 1956.

Co-ordination in Planning

Suggestions for Ministerial Changes

SPEAKING AT a weekend school held by the Hampstead Young Conservatives at St. Leonards-on-Sea recently, Mr. WYNDHAM THOMAS, Director of the Town and Country Planning Association, suggested that a Minister of State should be appointed within the Ministry of Housing to deal with town and country planning. A committee of Ministers of Housing, Labour, Transport, Agriculture, Works, Power, Defence and the Board of Trade should also be formed. He had been talking with the Ministry of Housing and understood that this was favoured.

The appointment of a Minister who could over-rule other Ministers would be obviated, but co-ordination between government departments on all forms of development would be ensured. He stressed that without such co-operation many developments would be uneconomical. There was no point in creating new factories in a certain area to completely absorb the working population if it was also necessary to reduce the population in a slum clearance scheme. New roads should be constructed bearing in mind the economical development of the areas served.

A sense of values should be maintained when considering the handing over of agricultural land to industry. Provided this was controlled and planned there was plenty of land available for all the foreseeable future.

Mr. Wyndham Thomas also said that there should be co-operation between local authorities and private enterprise in building new towns or in re-development schemes. The local authority could plan the development and acquire the necessary properties and then lease the land, possibly to a consortium of private developers. In this way the capabilities of private enterprise and the public authorities could be combined with good effect.

Gas Inspired Houses

Competition Designs on Exhibition

REVIEWED BY ARTHUR W. KENYON, CBE, FRIBA

THE PARTY which gathered at the RIBA on October 24 to see the presentation of the awards in the Gas Council's house competition was a pleasant little affair in which most of the people present seemed to receive a prize. In fact, the number of the awards, coupled with the youth of those receiving them and the benignity of those awarding them, made for a thorough-going Speech Day occasion.

The competition was eminently one for young people, and the appointment of Mr. Grenfell Baines as its assessor was eminently appropriate. The very free conditions and the unorthodox terms in which they were presented, whilst they might not offer anything new to those of us who have been designing houses in a climate of changing social circumstances for more years than we care to remember, nevertheless had obviously inspired in the young competitors the sort of unfettered thinking which both the promoters and the assessor had in mind.

A Proud Parent

Mr. Hubert Bennett—who did not actually receive a prize himself but filled the role of proud parent to his young assistants among the prize-winners—spoke of the Motor Show and reminded us of the fact that the owner of a motor car often gets more warmth and comfort in his modern-designed car than he gets in his home. This was a point worth taking and in the spirit of the thinking which the competition had set out to inspire.

It was pleasant to see an assessor who had so obviously enjoyed his task and was happy about the results it had produced. The problem he had presented to the competitors was as much a social as a technical and architectural one. The Gas Council, in promoting the competition, had offered the resources of its technical knowledge and advanced skills, with the unconcealed object of encouraging a greater use of gas for domestic purposes: the assessor, in laying down the conditions, had sought to take full advantage of the promoters' cause and the release from technical planning problems which it implied, and at the same time had stressed the need to take account of the latest social conditions for which a well planned home must now provide. In the last analysis, the judgment of the assessor must be an architectural one, but this assessor is an architect who has given much time and thought to exploring the full range of possibilities in house design, and has shown himself a master executant in this form of unspectacular public service.

The Most Marked Note

What new has come out of these worthy, new-yet-old competition conditions? The prize-winning designs have already been published and the assessor's comments fully reported [' The Builder ' of October 13]. It seems foolish and ungenerous to pick on the minor quibbles of planning which immediately catch the architect's critical eye in any competition of this kind, yet we must all accept this kind of criticism of our work if we really seek perfection.

Looking at the competition generally, I would say that the most marked note is one of freedom to plan space to the designer's conception of living requirements, rather than to the designer's sense of technical necessity. I would say that this is partly inspired by the lack of restrictive conditions relating to site and cost—factors which are, of course, the first to rear their heads when the architect builds for a client; but perhaps the real release in this particular competition was that provided by the space-warming amenities of gas. The competitors have taken full advantage of the lifting of the burden imposed by solid fuels, and some very pleasant new planning ideas have emerged.

HOUSE TYPE 4 (950 sq. ft.) designed jointly by MRS. LYDIA DRANSFIELD and MR. F. J. BANCROFT, was my favourite prize-winner. This is a very pleasing small family house and is all—or at least most—of what the assessor claims for it, although I think perhaps his ' triumph of handling space ' is carrying eulogy a little far. The planning is excellent, except for one minor quibble about the landing which I thought poor and dark and likely to involve difficulties in moving furniture. I particularly liked the layout of the group around a green, with the minimum of private garden facing on to the green. This should attract those for whom gardening is a chore rather than a hobby.

HOUSE TYPE 2 was the biggest house in the competition with 1,500 sq. ft. at the competitors' disposal. The winning design by MR. D. CALLAGHAN, shows a well thought out plan, carefully considered to accommodate the sort of modern family living to which the conditions invite special attention. The living space is carefully arranged to provide for separate dining, television viewing, study and hobbies, all of which can be brought into the central living space or divided off at will. One feels that the winner here has really put his mind to thinking out the details of life in a modern family with both indoor and outdoor spaces planned for every need. I was a little worried by the assessor's comment about the ' spacious study where not only the children, but parents, may practise the piano *in comfort for everyone* '—but perhaps in the event the general solace he has in mind will not be wanting. My only quibble with this house was that I found it rather ' insular ' in its site planning; but then ' in vacuo ' site planning can never really be satisfactory.

The Single-Person Dwelling

THE SINGLE-PERSON DWELLING section attracted the least number of entries, which is perhaps not surprising, since the scope of planning within 200 ft. is not the kind to fire architectural enthusiasm. The prize-winning scheme designed jointly by MR. PETER COOK and MR. DAVID GREENE, is pleasant enough, but I would have liked to see some modest storage space included.

Of the twenty-one designs displayed, representing prize-winners and commended designs, it was interesting that not one had fallen for the split-level treatment: perhaps this has already run the full spell of its ' pop ' life. I was also interested to note as a fashion point that pitched roofs are definitely ' out,' not even the slightest pitch being conceded—a point, of course, which gives added scope for freedom in planning. I was disappointed that everyone still thought it necessary to provide a covered compartment for the motor car or cars as big as the living room: I wonder whether this need really be so. The motor car is intended for an outdoor life: why not push the problem back to the car manufacturers and ask them to design for a full open-air life?

It troubled me to know how one particular design in the 1,500 sq. ft. house section had found its way into the collection, but no doubt the assessor had his reasons which reason does not know. At first sight, I thought the plan had slipped in from somebody's pathology department, but I confess I was not sufficiently attracted to pursue the matter.

Remembering the day when the number of architects prepared to devote time and thought to the design of small houses could be counted on the fingers of your hand, it is a great encouragement to me to find that in 1961 a competition like this can evoke so much young architectural enthusiasm.

Royal Institute of Architects of Ireland

Award of Gold and Silver Medals

TRIENNIAL gold and silver medals awarded by the Royal Institute of the Architects of Ireland for work of outstanding architectural merit in Ireland in the period 1956-58 were presented at a reception in Dublin on October 24.

The triennial gold medal was won by Piaras MacCionnaith, BArch, FRIAI, ARIBA, for his design of St. Raphael's College of Physical Education, Blackrock, Dublin.

Dermot P. Smyth, BArch, MRIAI, ARIBA, AMTPI, now senior architect, Dublin Corporation, was awarded the triennial silver medal for housing of exceptional merit. This was Mr. Smyth's second award. He won the silver medal for 1953-55, also for housing.

Piaras Beaumont, BArch, was highly commended for his design for a fish processing station at Galway. Commended for special mention were Raymond MacDonnell, BArch, C. Harvey Jacob, MRIAI, ARIBA, and Frederick Rogerson, BArch, Dip CD, MRIAI, ARIBA—all three for designs of houses.

Planning and the Builder

A County Architect's Views

A MEETING organised by the Southern Counties Federation of Building Trades Employers at High Wycombe on October 16, was addressed by Mr. F. B. Pooley, county architect and planning officer for Buckinghamshire, on the general subject of 'Planning and the Builder.' Mr. P. Turney, president of the High Wycombe and District Association of Building Trades Employers, was in the chair.

MR. POOLEY dealt with general planning problems but thought that his audience would be interested in two points in particular. First, the question of densities for new housing development, and second, the public relations between the building industry and planning authorities.

Dealing with the question of densities, he said that at the moment between 4,000 and 5,000 houses were being built in south Bucks each year, and if this rate of progress was maintained, within the next seven years or so the whole of the virgin land available for housing would be exhausted.

It was, therefore, in everybody's interest to ensure that the most efficient use was made of every piece of land still

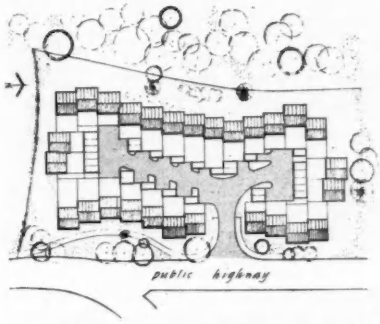


FIG. *1.—Housing layout by Messrs. Marshman & Warren in conjunction with the area planning officer, Mr. John Carter*

available. In general terms, this would mean providing higher densities, although he felt sure everybody would agree that high densities were not applicable to all sites. Indeed, in some areas where an established atmosphere of high-class low-density housing existed, this should be preserved and planning permission should not be given for any development which would disturb it.

There were sites, however, where higher densities were applicable and could be applied without any loss of amenity. Unfortunately, when considering such sites, many builders tried to achieve higher densities by the simple process of cramming in more ordinary houses closer together. What was really needed was new thinking and a new approach to the problem.

His point of view was that the planning authority had a positive contribution to make and Bucks had therefore recently established a Development Group who were engaged upon developing new types of layout, and, by working with architects and builders, were trying to ensure that good quality development was achieved. Mr. Pooley illustrated his talk with several typical cases where this process was happening with advantages to all. Such a case is shown in Figure No. 1. This scheme was prepared by Messrs. Marshman and Warren, chartered architects, at Bedford, in conjunction with the area planning officer, Mr. John Carter, MTPI: this layout achieves a density of 20 houses to the acre, each dwelling unit having an enclosed patio garden and garage at the rear. One of the merits of this scheme was that the cost of site works was remarkably low.

High Land Values

Mr. Pooley stressed that he thought that, with the present high land values in Buckinghamshire, the builders had to be much more choosey about selecting their technical advisers, and unfortunately we did not live in Utopia, where the advice offered by all qualified men was of the highest kind. He still saw many applications dealing with extremely valuable sites—and often from qualified men—with very uninspired solutions to the planning problem. His advice to builders was to choose their advisers carefully. He was certain that, so far as the density question was concerned, for instance, one could not fix the density applicable to any individual site on a rule of thumb yardstick only, but that the ingenuity of individual designs and schemes was bound to be taken into account. Builders should, therefore, do their best to appoint architects who were capable of producing imaginative schemes.

MR. J. T. IRELAND, JP, FIOB, was present at the meeting, in the capacity, he said, of a builder, although he was also the chairman of the county planning committee. He was certain that, if a planning authority undertook development work with a view to offering a positive contribution to development control, then much of the present criticism about the frustrating activities of planners would disappear. Indeed, with the new outlook his committee were trying to introduce into Bucks, he saw a happy relationship between the industry and the planners.

Dealing with the need to provide the house builder with sites, MR. POOLEY, continuing, put forward what he thought was a novel idea which might well be popular in the foreseeable future. He suggested that where house builders could find a site which was basically suitable for multi-storey flats they might form a group or consortium and bring in a reinforced concrete specialist firm to build a reinforced concrete frame with floors and staircases for a multi-storey block of flats. The house builders could themselves then carry on and complete each flat, probably making good use of prefabrication.

Reducing Construction Costs

Prefabrication was not normally very successful because of its inability to keep out the weather, but in these circumstances with the exterior cladding units set well back behind balustrading and seated and covered with reinforced concrete, they would be successful and the

FIG. *2.—Suggested 'vertical plots' in standardised reinforced concrete frames*

builder thus be enabled to make the best possible use of his labour force.

It might be possible to standardise these reinforced concrete frames and so drastically reduce their construction cost. With land now costing over £1,000 for a house plot it seemed that the cost of providing these 'vertical units' would be a great deal less. The day might well come, he thought, when we would see many house builders developing individual flats in a single multi-storey frame.

The Institute of Builders

Forthcoming Events

BUILDING EXHIBITION, OLYMPIA.—The president and officers will attend an afternoon tea which the Institute is arranging for members and their friends in the Empire Rendezvous café at the Building Exhibition on November 21 at 4.30 p.m. Following the tea a buffet will be provided until closing time at 8 p.m. Tea tickets, price 5s. 6d. each, may be obtained from the secretary.

ANNUAL DINNER.—The annual dinner will be held at Guildhall on February 13, 1962. The closing date for the receipt of applications for tickets, price £4 14s. 6d. each, inclusive, is November 30.

ANNUAL GENERAL MEETING 1961.—To be held in the Painters' Company Hall on April 17.

EXAMINATIONS 1962.—Intermediate and Final Part I (new regulations), June 25, 26, 27, 1962; Final Part II (new regulations), June 25 and 26, 1962. Modified licentiate diploma (old regulations), September 3 and 4, 1962.

Motor Age Towns

Discussion on Mr. Colin Buchanan's Rees Jeffreys Lecture

THE FIFTH REES JEFFREYS triennial lecture was delivered by Mr. C. D. Buchanan, BSc, ARIBA, MTPI, on the subject of 'Standards and Values in Motor Age Towns' at a meeting sponsored by the Town Planning Institute, at the RIBA building, 66 Portland-place, London, W1, on October 26 ('The Builder' of October 27). We now give extracts from the subsequent discussion.

Proposing a vote of thanks to Mr. Buchanan, LORD CONESFORD, who, as Mr. H. Strauss, was a former Parliamentary Secretary to the Ministry of Town and Country Planning, declared that today we were not only threatened with the progressive and bad deterioration of our environment in town and country, but with the circulation of traffic, and there was no chance whatever of solving these problems in isolation. It was also true that they would have to solve them all or solve none. He was in complete agreement with all that Mr. Buchanan had said.

The fundamental truth about town and country planning was that two things were necessary to civilised life: a good town and a good countryside. They must see they were not blurred, so that they had in their place a situation without the charm of either. That was what the motor car threatened to do if we were fools, and it need not happen if we were wise.

Mentioning what he described as some of the many follies that should be stopped straight away, Lord Conesford felt that if they wanted to avoid the 'horrors of the rush hour,' one of the principal objectives would be to diminish, rather than increase, the number of people compelled to travel to and from work. But this was not exactly what they were doing when they replaced residences with office buildings. This was an act of lunacy which, unless they were mad, should stop.

MR. ARTHUR G. LING, BA, FRIBA, MTPI, architect and planning officer, Coventry, seconding the vote of thanks, made a plea for greater co-operation between the three professions—engineers, architects and town planners—in dealing with the problem. He wondered whether it was not too fantastic to suggest that in the future they might even look towards amalgamation of the three professional institutes for dealing with town design. He believed it was necessary for them to get together and work out plans in which they recognised each other's responsibilities without coming into conflict. Without that coming together of the three professions, Mr. Ling could see they would not eliminate the 'Oxford-street mentality.'

The road engineers would still be designing their corridors; the architects would still be designing their individual buildings with no relationship to the buildings on either side; the town planners would still get out their road plans, and with very inadequate controls, try and pull the whole thing together, and, of course, they would not succeed. Until they found a new way of working together, he very much doubted whether they would achieve the objectives which Mr. Buchanan had set.

Perhaps they needed to control the whole system of education, because at the moment they tended to come together at the end of their training rather than at the beginning. They needed to start as friends; they needed to see the whole picture of the problems of the town, and have, at least, some small period of education together before they specialised.

Mr. Ling said he would like to see established in one of the new universities something like an Institute of Advanced Research in Town Design in which all the professions concerned could work. He would like to see it in Coventry where a new university was established. Perhaps the first task of those who would be put in charge would be planning the educational system itself. He believed this was the starting point of any new approach to the whole problem of town design.

A PREFABRICATED FLYOVER.—*This 'Carbridge,' which was erected at Camp Hill, Birmingham, recently in less than 30 hours, is made of portable steel sections and is designed to have a life of 25 years. This particular example measures 790 ft. long and weighs nearly 300 tons; the cost was £80,000 compared with £500,000 for a conventional design. The inventor is Major Strologo, and the flyover was erected by the constructors, John Lysaght's Bristol Works Ltd.*

South Wales Traffic Survey

Trunk Roads Overloaded

BASED on present-day standards of traffic capacity, 44 per cent of the total mileage of trunk roads in South Wales is overloaded. Nine per cent is carrying twice the number of vehicles it should. If traffic growth is estimated conservatively at 5 per cent a year, the overloading percentage will itself go up by half as much again during the next 10 years, and that of double overloading will more than double.

These are some of the facts revealed by a traffic survey of South Wales, instituted by the Industrial Association of Wales and Monmouthshire. The consultants have recommended new and improved road construction which will cost a total of £120m. They advise that the worst aspects of the problem—involving 10 major road schemes—should be tackled over 7 years. These would cost £86m., calling for an average annual expenditure of £12,300,000.

One of the major schemes proposed is an approximate 60-mile extension of the London to South Wales motorway from its present intended termination at Newport to Llanelly.

Herefordshire Post Open

HEREFORDSHIRE COUNTY COUNCIL invite applications by November 30 for the post of Deputy County Architect. Salary scale £1,800-£2,050 plus travelling and subsistence allowances. Details advertised in this issue.

The Week in Parliament

From Our Own Correspondent

Parliament's new session opened on Tuesday with the Queen's speech. The business reported below was conducted before the House was prorogued on October 24

The Hospital Building Programme

SUSPICION that the Government were soft-pedalling on the 10-year hospital building programme, was 'ill-founded,' said MR. ENOCH POWELL, Minister of Health, at question time in the Commons on October 23.

Asked for a statement on the programme, he could only refer to a previous comment in July. He went on to explain that this was a big job which had to be properly done even if it would have to be subsequently and continuously revised. 'I shall hope to present the results as early as is consistent with that work,' he added.

A Labour member, MR. DENIS HOWELL, said that suspicion that the Minister was trying to conceal information from the House was well founded. Information in respect of the Birmingham regional hospital board had freely appeared. But Mr. Powell maintained that while he was still working with boards on the content of the 10-year plan, it would be misleading and wrong to give individual figures. He was sorry to ask them for a little more patience but it was important that the work should be done properly and presented as a whole.

When MR. KENNETH ROBINSON, Labour's health spokesman, had recalled that the Prime Minister at the Brighton conference of the Conservative Party had stated that £500m. was going to be spent on the hospital programme over 10 years, the Minister said he did not think this was a new piece of information. It had been available for a year and was a broad indication of the total sum likely to be available in the decade.

Birmingham's Overspill

PLANNING OFFICERS in the West Midlands have been asked to survey their areas to see what contribution each might make in the search for land to cater for Birmingham's overspill. DR. CHARLES HILL, Minister of Housing and Local Government, indicated this on October 23 when he was asked by MR. DONALD CHAPMAN, a Birmingham Labour MP, what request he had made to local authorities in the West Midlands to find land for 100,000 houses for Birmingham's overspill population; whether he proposed that industry should be attracted to these sites or whether he envisaged commuting across the Green Belt; and what proportion of the houses were to be built by private enterprise for sale.

DR. HILL said 'Planning officers in the West Midlands have been told that over the next 20 years it may prove necessary to find land for not less than 100,000 houses to meet the needs of the conurbation over and above the current proposals for development under the New Towns and Town Development Acts. They have been asked to survey their areas to see what contribution each might make. This is a technical survey and involves no decision of policy on the way in which the development might be carried out. Plainly the officers will bear in mind the importance of the relationship between the places in which people live and those in which they work.'

A Tax on Land Values?

SOME SPECULATION was aroused in Parliament on October 23 that the proposed legislation by the Chancellor of the Exchequer to deal with quick profits made in property might also cover land values. In his speech vigorously defending his pay pause policy, MR. SELWYN LLOYD recalled an earlier undertaking that certain transactions, such as short term deals on the Stock Exchange and in property which were intended to bring in spending money and incomes, would be taxed as such. He said he would now bring in legislation to deal with this as soon as it was ready. (It had not been expected that this legislation would be forthcoming until the next Budget). At this MR. HAROLD DAVIES, a Labour MP, asked 'In view of the Chancellor's statement will he look at the exaggerated rise in land values when making these promises?' And MR. LLOYD, giving no indication of the reaction of dissent, pointed out that he had said quite clearly that he was to bring in legislation to deal with quick profits made in property. 'I said in my Budget speech' he added, 'that I always believed that these transactions yielded profits in the way of income rather than of capital, and should be taxed as such.'

Other Business

Channel Tunnel Plans

MR. TEELING asked the Minister of Transport on October 23 if he would make a statement about the progress made in arranging official discussions with the French Government about the construction of a Channel Tunnel and possible alternative schemes which had been put forward; and what further plans he had for accelerating the reaching of official decisions in this matter.

MR. ERNEST MARPLES wrote: 'The French Government have agreed to the suggestion made some time ago by Her Majesty's Government that talks should take place about the construction of a Channel tunnel. I have already discussed this project and possible alternative schemes informally with M. Buron, the French Minister of Public Works and Transport, in London on October 2. I hope to have further discussions with him in Paris on November 20.'

Glen Nevis Hydro-Electric Scheme

The deferment of the public inquiry into amenity objections to the Glen Nevis hydro-electric scheme was announced in the Commons on October 23 by MR. JOHN MACLAY, Secretary of State for Scotland.

National Gallery Extension Site

The Ministry of Works is to work out a long term plan for the use to the best advantage of the site acquired from the Canadian Government in 1959 for the extension of the National Gallery. This was announced in the Commons on October 18, by LORD JOHN HOPE, Minister of Works. In a written statement he indicated that he did not intend to let the site on a long term basis but to put it to a suitable short-term use. He added: 'I am satisfied that a longer term letting might, while it lasted, obstruct any extension of the National Gallery or National Portrait Gallery on sound lines. My department will now be working out, in consultation with both trustee bodies, a long-term plan for using to the best advantage the whole area available to the two galleries together, and I will inform the House of the proposed plan in due course.'

Buildings of Historic Interest

MR. ROBERT COOKE and DR. BARNETT STROSS asked the Minister of Housing on October 24 how many notices of proposed demolition of buildings of special architectural or historic interest he had received under the provisions of Section 30 of the Town and Country Planning Act, 1947, in the six months ended June 30; in how many of these cases building preservation orders had been made and confirmed; in how many cases the buildings had been saved otherwise; in how many cases building preservation orders made by local authorities were not confirmed; and how many of the cases were referred to his Advisory Committee.

MR. GEOFFREY RIPPON wrote: 'In the six months ended June 30, 1961, notices of the proposed demolition of 247 listed buildings were received. Nine building preservation orders covering ten of these buildings have so far been submitted by local authorities, and Mr. Brooke, now the Chief Secretary of the Treasury, gave notice of his intention himself to make an order in respect of another of the buildings. One of these orders has been confirmed and one has been rejected. The remainder are under consideration.

'The Minister's Advisory Committee were consulted on about 28 of the buildings in respect of which notices were received during the period. He has no records which show what finally happens to the buildings notified to him as being threatened with demolition. If he does not choose to intervene, this becomes entirely the responsibility of the local planning authority concerned.'

Improvement Grants

MR. FRANK ALLAUN asked the Minister of Housing and Local Government, on October 24, how many improvement grants were made in the last 12 months; and how many of these were for houses owned by private landlords and how many for owner-occupied houses.

DR. CHARLES HILL: 'Including local authority houses, 129,334 dwellings were approved for grant purposes in the 12 months ending September 30, 1961. Of this total, 62,121 were owner-occupied dwellings and 25,462 were occupied by tenants of private landlords.'

RICS

Experimental Autumn Examination Results

THE ROYAL INSTITUTION OF CHARTERED SURVEYORS has just published the results of an experimental autumn examination, held in September, for candidates referred only in typical subjects of the Final Examination in March, 1961. This year, the experiment was limited to an examination centre in London only, although candidates were able to take English or Scottish set papers. Of the 318 candidates who sat for this autumn examination, 139 were successful. The names of the successful in the examinations for Town and Country Planning, Building Surveying and Quantity Surveying in England and Wales; Scotland; and Ireland are given:

ENGLAND AND WALES

TOWN AND COUNTRY PLANNING SECTION

C. E. Holland.

BUILDING SURVEYING SECTION

R. Blackhurst, B. W. Brooke, M. C. Cliffe, A. J. Cunnew, W. J. Hawkins, J. K. King, A. J. Lennox, J. S. Madge, and J. C. Scrivener.

QUANTITY SURVEYING SECTION

C. E. Ball, K. W. Bailey, R. A. Bannister, H. J. Beatty, B. D. Beckley, A. R. Booth, M. S. Bundock, D. M. Butter, R. J. Button, M. J. Carter, R. Chatfield, A. V. Clark, D. W. G. Clark, R. O. Collett, C. Cope, G. D. Cottrell, D. R. Criswick, J. L. J. Davies, L. J. Deeprose.

M. J. Elliott, A. C. Ellis, M. F. Field, C. Gardner, D. R. Goodwin, P. F. R. Griffiths, D. L. Guy, D. A. Harman, J. L. H. Harris, A. W. Herbert W. J. Herbert, D. W. Hoar, P. H. Holgate, W. H. Horne, M. J. Hurd, E. J. Jacobs, E. J. Kift, N. R. King.

J. Lane, A. J. E. Lee, B. D. Lott, C. P. McAnally, J. G. McCarthy, H. E. Matthews, D. J. Melluish, E. F. P. Mercy, K. W. Merry, R. C. Milligan, J. H. Mullenger, N. B. Osborn, G. B. Ottley, G. C. Potter, G. Price, J. M. Reddish, D. Reece, J. D. Reid, T. B. Rice, J. H. Rylance.

G. R. Scott, R. H. Sharman, D. McD. Smith, M. B. Smith, P. J. Solari, R. G. Talbot, F. J. Tregoning, M. Vandome, P. C. Venning, A. H. Vickerton, D. A. Watson, D. J. Watt, T. R. C. Webster, G. A. White, D. Whittle, M. J. Wilkins, J. E. Williams, R. J. Wootton, I. T. Wright, and R. S. Wyatt.

SCOTLAND

BUILDING SURVEYING SECTION

J. S. Stewart.

QUANTITY SURVEYING SECTION

I. N. Brown, G. E. D. Clarkson, D. I. Curran, G. C. Davies, A. Gray, A. Mackay, J. R. MacNish, G. P. Murray, J. W. Neillie, D. Robertson, R. M. Smith, J. Speirs, R. L. Swandells, and G. McD. Weir.

NORTHERN IRELAND

QUANTITY SURVEYING SECTION

J. G. Anderson, C. R. N. Hannigan, G. L. Johnston, and W. C. Mahaffey.

REPUBLIC OF IRELAND

QUANTITY SURVEYING SECTION

K. T. C. McArdle.

The Housing Land Crisis

A Building Society Report

WHAT is described as the gravity of Britain's Housing Land Crisis is examined in a report having the above title, just issued by the Alliance Building Society, of Brighton. Following is a summary of this:—

1. In many areas, only two or three years' supply of building land remains. In the most popular districts, there is virtually no building land available.

2. The existing Development Plans are completely outdated and bear no relation to present and future requirements for housing land.

3. In the next twenty years the population will increase by 4,600,000 plus immigrants.

4. The number of households (that is, separate families) requiring houses will increase by 4m.

5. To replace slums, houses more than 100 years old, houses lost in public development schemes, and to wipe out overcrowding, another 4m. houses will be required.

6. To meet the increase in households and replacement needs an average of 400,000 houses must be built every year for twenty years.

7. The expenditure on housing construction has risen by 5.7 per cent less than the average expenditure on all forms of fixed capital formation in the last five years and the proportion of total expenditure devoted to housing has fallen.

8. 400,000 houses a year would cost less than the present rate of expenditure on other new buildings and works.

9. The building land famine is worse in some regions than others—the position is particularly desperate in South-East England and the West Midlands.

10. The location of new industry and commerce is not being effectively controlled—the South-East Region, with 27 per cent of the population, gained 45 per cent of the new jobs between 1952 and 1959.

11. Urban development at present covers 9.7 per cent of the total land area.

12. An increase in housing construction to 400,000 houses a year for twenty years would, with other urban development, increase the total urban areas to 12.6 per cent of the total land area.

13. The loss of agricultural land would be some 3.7 per cent of the 1950 acreage —a loss which could be made good by increased productivity in a few years.

Building Wage Claim

Employers to be Approached

THE NATIONAL FEDERATION OF BUILDING TRADES EMPLOYERS is to be approached by building union leaders who are to ask whether they can constitutionally demand a 'substantial' increase in wages. In the past their claims have been for a specific amount, but it appears that the National Federation would prefer not to state a figure on this occasion.

Under the industry's agreements any claim must be submitted by November 14 for discussion in January. If it is decided that a figure must be named leaders of the affiliated unions will have a further conference to settle what it shall be. Any claim they make will be for an increase additional to that which they are to receive under the agreement which links their wages to movements of the retail price index. The average of the year's index figures is taken, and, on present tendencies, this should ensure them at least another halfpenny an hour and possibly a penny.

The Tea Breaks Dispute

WE UNDERSTAND that peace now reigns over the major part of the country and that the unfortunate tea dispute is gradually being resolved. There are, however, various pockets, especially in the London area, where the matter is still causing difficulty. It is hoped that these cases will be settled by the joint machinery provided by the National Joint Council for the Building Industry.

Builders Reduce Tenders

Large Saving for Council

IT WAS REPORTED at a meeting of Nottinghamshire County Council's standing joint committee on October 20 that when tenders submitted by contractors for the erection of a new police station were rejected because they were all too high, as many as twelve contractors put in revised tenders reducing their estimates by up to £4,000. MR. W. D. LACEY, ARIBA, AMTPI, Nottinghamshire county architect, reported that the lowest original tender amounted to more than £10,000. When they were all rejected, further tenders were sent in and one of these was as low as £6,100. The second lowest was for £7,463, and the highest was for £8,594.

ALD. WILLIAM BAYLISS, chairman, said it was surprising how much these tenders could differ when the occasion arose. The committee agreed to accept the lowest tender provided the contractor had not misunderstood the details of the contract.

It was also reported that the committee would have to pay an extra £80 over the previously agreed cost of £2,195 each for new police houses at Mansfield. The contractor had been faced with a wage rise in the trade after agreeing to a price and suggested that a rise and fall clause be inserted in the contract drawn up with the county council. Since however, the county council do not normally consider entering into contracts with such clauses, it was felt the best thing to do was to revise the price. The sum of £80 a house was agreed by both sides.

Firm Prices for Materials and Services

Second List of Manufacturers Willing to Quote

Our second list of specialists and manufacturers who are willing to quote firm prices over a period for their products is given below. The first list appeared in 'The Builder' last week, and further lists will be given as firms respond. Mr. Peter Trench, whose letter to 'The Builder' of October 13 initiated this feature, has stated that he will consider circulating the list to his 16,000 National Federation members should there be a sufficient response. Firms prepared to quote should write to the Editor, 'The Builder,' 4 Catherine-street, Aldwych, WC2, giving the name of their products and quoting the period over which they are prepared to hold quotations.

Architectural Concrete and Cast Stone

KENDELL'S STONE AND PAVING CO. LTD., Barnett Wood-lane, Leatherhead, Surrey.
PERIOD: Up to 18 months.
PRODUCT: All types of architectural concrete and cast stone work, particularly exposed aggregate cladding panels, patterned concrete and pierced walling blocks.
COMMENT: Always prepared to give firm prices for periods of at least 12 months and, in many cases, after negotiation, to quote firm for 18 months.

Bricks and Tiles

NATIONAL COAL BOARD, Marketing Department, Hobart House, Grosvenor-place, SW1.
PERIOD: By arrangement.
PRODUCT: Bricks.
COMMENT: The Board are prepared to consider firm prices for bricks, inquiries to be made to the Divisions concerned. These are Scottish, Northern (N & C), Durham, North-Western, North-Eastern, East Midlands, West Midlands and South-Western.

Facing Materials

J. JOSLIN & CO. LTD., 287-289 High-road, East Finchley, London, N3.
PERIOD: 24 months.
PRODUCTS: Marble, granite, Broughton Moor green slate and blue-grey slate.

Joinery

A. E. DALZELL LTD., 188 Oxford-grove, Bolton, Lancashire.
PERIOD: At least 12 months.
PRODUCT: Specialist joinery.

JAYANBEE JOINERY LTD., High-street, Uxbridge, Middx.
PERIOD: 24 months.
PRODUCTS: High-class joinery.
COMMENT: The company has been quoting firm prices to customers since MoW went over to firm-price tendering.

Painting

BAXTER BROS. (1920) LTD., Collingwood House, 141 Wood End-lane, Erdington, Birmingham 24.
PERIOD: 12 months.
COMMENT: Happy to quote firm prices for painting for 12 months, subject to estimate being accepted within three months. This brings firm price commitment to a total of 15 months when full advantage is taken of acceptance period.

Plant and Equipment

KWIKFORM LTD., Waterloo-road, Birmingham, 25.
PERIOD: 12 months.
PRODUCT: Patented plant and equipment for builders and civil engineers.

W D Works Services

Current Price Schedule

REVISED adjustment percentages to trade sections of the War Department Schedule of Prices for Works Services (1948) appliable to War Department term contracts (other than term contracts for painting and decorating services), also measurement contracts, and effective from October 2, are as follows:

Section	Trade	Percentage addition
1	Excavator	203
2	Concreter	145
3	Bricklayer	152
4	Asphalter	78
5	Drainlayer	127
6	Mason	143
7	Pavior and Roadmaker ...	104
8	Roofer	124
9	Asbestos Cement Goods ...	117
10	Carpenter and Joiner ...	116
11	Ironmonger	118
12	Ironfounder, Smith and Structural Engineer ...	171
13	Gasfitter	157
14	Plasterer, Floor and Wall Tiler	139
15	Plumber	130
16	Electrician	114
17	Glazier	152
18	Painter and Decorator ...	154
19	Hutting	102

NB—Where section 20, camp structures, has been incorporated in the contract, the percentage addition will be 102.

Books Received

A Current List

*** Books noted in these columns may be obtained on application to the Book Dept., 'The Builder,' 4 Catherine-street, Aldwych, WC2. Cash (to include 9d. postage on books to the value of 10s.; 1s. 6d. over 10s.) should accompany the order.*

TOWN PLANNING AT THE CROSS ROAD. By Lewis Keeble. (London: The Estates Gazette Ltd.). Price 32s. 6d.

CANONIC DESIGN IN ENGLISH MEDIAEVAL ARCHITECTURE. By B. G. Morgan. (Liverpool: Liverpool University Press.) Price 42s.

SIMPSON'S HISTORY OF ARCHITECTURAL DEVELOPMENT, Vol. 3. Gothic Architecture. By Cecil Stewart. (London: Longmans, Green & Co., Ltd.) Price 35s.

LANDSCAPE ARCHITECTURE—THE SHAPING OF MAN'S NATURAL ENVIRONMENT. By John Ormsbee Simonds. (London: Iliffe Books Ltd.) Price 95s.

ARCHITECTS' WORKING DETAILS: FOREIGN EXAMPLES, Vol. 8. Edited by D. A. C. A. Boyne and Lance Wright. (London: Architectural Press.) Price 25s.

GLASS IN ARCHITECTURE AND DECORATION. Revised edition by R. McGrath. (London: Architectural, Press.) Price 126s.

TIMBER: ITS PROPERTIES, PESTS & PRESERVATION. By Prof. F. Y. Henderton, CBE, DSc (London: Crosby Lockwood & Son Ltd.). Price 16s.

PLUMBING. By F. Hall, AMIPHE, LIOB (London: Cleaver-Hume Press Ltd.). Price 7s. 6d.

COMPLETE WOODWORKING HANDBOOK. By J. Adams and E. Stieri (London: Arco Publications). Price 30s.

WATER SUPPLY AND MAIN DRAINAGE. By S. J. Asher. (London: Crosby Lockwood & Son Ltd.). Price 12s. 6d.

Design Committee for Laminates

IN ORDER to ensure the maintenance of a high standard of design for 'Arborite decorative laminates and to promote a wider appreciation and use of well designed laminates throughout domestic, commercial and public buildings, the Arborite Company (UK) Limited have sponsored the formation of a design committee, consisting of Sir Basil Spence, Professor R. D. Russell, Professor R. Guyatt, Mr. Philip Sanford, Mr. H. L. Johns, Mr. N. Eldridge. One of the committee's first tasks has been to promote a design competition among architects, industrial designers and students, the competition being in three sections, each of which offers a first prize of £100 and four other awards of £20 each, as follows: 'Furniture Design,' using laminate surfaces for dining room, bedroom or living room furniture—built-in or free standing; 'Architectural Design,' using laminate surfaces for the interior of a public building such as a restaurant, bank, supermarket, school room, conference room or hotel entrance; and 'Graphic Design' for a laminate pattern. Details from Arborite Design Competition, c/o Waddicors, 22 Dorset-sq., NW1.

Eastern Federation

Conference on Technical Education

THE THIRD TECHNICAL EDUCATIONAL CONFERENCE, sponsored by the Eastern Federation of Building Trades Employers, was held on October 24 at the University Arms Hotel, Cambridge. Mr. C. E. Wadley, president of the EFBTE, was in the chair. A special welcome was extended to Mr. J. R. Newman Booth, Her Majesty's Inspector, who is shortly to retire.

The conference had before it a statement showing current apprenticeship figures throughout the Region. There was evidence of a steady increase in the number of apprentices entering the industry and, although the figures were still below target, the improvement had become marked over the past two years. There was, however, a serious shortage in most areas of recruits for the trowel trades. Although in some areas the standard was felt to be still on the low side, the general consensus of opinion was that the standard of apprentice now entering the industry was considerably higher than five years ago. This improvement could be maintained if employers would be more discriminating in selecting their apprentices.

Discussion ensued on the relationship between the number of indentured apprentices in particular areas and the enrolment figure at the colleges. Differences would arise from the fact that boys were normally required to serve a probationary period of up to six months before their indentures were signed. An undertaking was given on behalf of the Federation by the Director (MR. R. W. PORTER) that a comparative analysis would in future be prepared once a year (starting in 1962) of the figures of current apprenticeships together with college enrolment statistics. Principals would later be invited to forward the required information for this purpose.

Pre-Apprenticeship Courses

The conference noted that there were at present ten pre-apprenticeship courses running in the region with approximately 100 students. The Federation attached considerable importance to these courses, satisfactory attendance at which merited a year's reduction in the apprenticeship period. Experience on these courses varied considerably. While some colleges had more applicants than could be accommodated, in other instances where arrangements had been made between the local joint apprenticeship committee and the education authority for a course to be instituted, insufficient recruits had come forward in spite of guarantees of apprenticeships on completion.

The view was forcibly expressed by both representatives of technical colleges and the industry that the proper place for pre-apprenticeship courses was the technical college and not the secondary modern school where it was felt there was neither the staff, equipment nor the right atmosphere.

Induction Course at Norwich

MR. T. V. DOUGLAS, head of the Building Department of Norwich City College, gave a brief report on the progress of the four week full-time induction course being run at the college each September for new apprentices in each of the crafts, except painting. Mr. Douglas said that it had been felt that there was a need to do something to close the gap caused through the closing down of the junior technical school and it was through this that the idea of the induction course had been conceived. The proposal had been discussed with the local builders who, although a little sceptical at first, had agreed to allow their first year apprentices to attend the college (with full pay) for a period of one month. So far as the college was concerned, it entailed placing the whole of the resources of the craft side at the disposal of the four week course. This meant that apprentices attending day release from second year onwards, commenced their studies a month later.

The recent course with its emphasis on trade training had been attended by 100 apprentices in all crafts, except painting, from 24 different firms. Among the benefits which were derived from the induction course was a clear indication during the four weeks of the suitability of boys for their particular crafts. Mr. Douglas said that the progress which the apprentices made in their practical work during this comparatively short period was quite remarkable.

Ipswich Block Release Course

The conference considered a comprehensive report on the experimental block release course which had been inaugurated at the Ipswich Civic College in September, 1960. Commenting on the report the Principal of the College, MR. F. METCALFE, reminded the conference that the experiment had been initiated as a result of the discussion at the last education conference organised by the Federation in 1959. Although the experiment had only been running for one year, it was possible to give some assessment of the results. In the first year there had been 20 blocks of eight weeks each providing for over 200 apprentices in the crafts of bricklayer, plumber, carpenter and painter. During the 1961-62 year this would be expanded to 24 blocks. There had been a spectacular advance in the quality of practical work carried out, as it was possible on the block release system to organise long periods of practical instruction. Reports from the teachers indicated that not only had the quantity and quality of the work increased, but the interest of the boys had been much more easily maintained.

Whole-House Heating

Building to a Standard

'HEATING the traditional British house is like trying to fill a sieve with water,' said MR. E. P. LAWRENCE to a group of builders and their wives on October 18. Mr. Lawrence, who is president of the Fibre Building Board Development Organisation, was answering questions about insulation at a branch dinner of the Federation of Master Builders at Barnet, London. The question-session followed a showing of the new FIDOR film 'Building with Insulating Board,' which recommends the use of board both in the dry construction of ceilings and as a plasterbase. In answer to other queries Mr. Lawrence put these points:

'Only now are our building standards in housing becoming really meaningful in terms of standard of living. The house-builder of tomorrow will have to build up to a standard, whether he wants to or not. But he can do more than that. He can show his clients how to live in better comfort at little or no greater cost.

'In a house without fully controlled central heating,' said Mr. Lawrence, 'the housewife should no longer have to light a fire at noon to have the living-room warm by the evening. She should be able to light the fire when she comes in from work at 6, and still have a warm room before 8. To the builder, this means more room-by-room insulation. Building by dry techniques,' he concluded, 'saves the cost of mess and drying-out delay. But in dry construction it is necessary to pre-plan and build accurately—money cannot be saved at both ends.'

Specialist Engineering Contractors

New Joint Committee Established

A NEW BODY was set up on November 1 to deal with matters of common interest to industries engaged on specialist engineering work on building and civil engineering projects.

The body, which is the culmination of a number of years of informal co-operation between the founder-members, is called the Committee of Associations of Specialist Engineering Contractors (CASEC). The founder-members are: Association of Heating, Ventilating and Domestic Engineering Employers; British Constructional Steelwork Association; and Electrical Contractors' Association.

A spokesman for the new body—whose address is 58 Victoria-street, SW1—said that it was hoped the Committee would provide a simple and quick means of consultation with specialist engineering contractors and would serve as a negotiating body on matters of common interest.

Membership would be open to any trade association representing specialist engineering contractors engaged on building and civil engineering projects.

Sanitary Ware and Wall Tiles

Exhibition in Liverpool

AN INTERESTING exhibition of sanitary ware and wall tiles can at present be seen at Liverpool's Bluecoat Display Centre until November 8. Although modest in scale it is well displayed and the three sections—wall and floor tiles, vitreous china ware and glazed fireclay—are respectively the products of H. & R. Johnson & Co. Ltd., Johnson Bros. (Trent) Ltd. and Johnson Fireclay Co. Ltd.

This particular exhibition, one of many the Display Centre has staged in its commendable attempt to raise on Merseyside the standard of art in everyday life, is being exceptionally well attended and those responsible for the administration may now have to think how the Centre can open on a Monday; at the moment many arrive on this particular day and are disappointed to find it closed.

When reviewing the exhibition it was suggested to the writer by a visitor that its popularity is because the wc suite has become the present day social status symbol; he recalled that in Victorian times it was the piano which in turn gave way to the hideous slabbed fireplace; what will supersede the reign of the 'throne' it is interesting to ponder. It is also interesting to speculate on how much the appeal is by colour—the white article was scarcely in evidence unfortunately—or whether such descriptive captions as 'Carefree' or 'Shower of Roses' are the actual sales boosters. We would join issue however with the claim that those 'under the glaze' flowers are 'a triumph of the potter's art.'

Nevertheless this pandering to a possibly imagined over sentimental public is offset by qualities of very evident merit. The workmanship in all three sections is of a high quality and there is general evidence of elegance and subtlety of design. Notable are the tile patterns—well executed—and the 'Cedar' glazed fireclay sink unit with built-in tidy compartment which also acts as a full bore overflow. In this exhibit the taps are more streamlined than in most (how clumsy always is the mixer) and it is not without significance that this unit has already received the London Design Centre approval.

At 5.00 p.m. on Wednesday, October 25, the Liverpool Architectural Society members were guests of the three firms concerned for cocktails and light refreshments. This hospitality preceded one of the Society's customary fortnightly meetings and this coming together in Liverpool of manufacturers and architects was the incidental kind of benefit resulting from the establishment of the Display Centre. Its committee, under the chairmanship of Professor Gardner Medwin, is to be congratulated on the work being done.

H. T.

Foremen and CoW's

Causes of Present-Day Difficulties

SPEAKING at the annual dinner-dance at the Elms Hotel, Aldridge, of the Walsall and District Clerks of Works and Building Foremen's Association, MR. T. E. COX, vice-president and secretary, asked: 'Why has the foreman fallen so far from grace in the industry?'

'We have felt for a long time that the poor old foreman has become the scapegoat for inefficiencies at the head office,' he went on. 'Is building so very much more difficult now? Candidly we think it is easier, if everyone on the site will play his part in the operation and planning of the job. But too often the foreman has been given drawings and left to get on with it, and only when the job is under way to do they descend in herds to criticise. And if the general foreman does not agree they say "That man is no good".'

In consequence there was a complete loss of confidence at head office, Mr. Cox said; loss of help, co-operation and exchanges so essential to good teamwork. That affected the foreman who, in turn, lost respect for those who were telling him how a particular operation should be done, without full knowledge of the site conditions.

'There is a need for general foremen to study problems with the management from the practical angle, and only then can these modern management techniques be applied and solutions found. There must be a simple solution to most of our troubles and if we can get all concerned together we shall find it,' Mr. Cox concluded.

Fires in Buildings

Big Increase Since 1946

OVER 62,000 fires occurred in buildings in the United Kingdom last year. This was the highest figure ever recorded since the Joint Fire Research Organisation began its statistical record in 1946.

These figures are given in 'United Kingdom Fire Statistics 1960'* just published, which, for the first time, are on sale to the general public. The figures point graphically to the increasing problem of fire prevention and control. Since 1946 the number of fires in buildings has increased steadily until today when it is nearly twice as high.

Comparative figures for the causes of fires show that the increase in electrical fires has continued. The majority of the 11,912 electrical fires in buildings (10,460 in 1959) is attributed to fires in cookers and to fires in a miscellaneous category, including a wide variety of electrical equipment. However, those connected with electrical irons, motors and refrigerators each showed a reduction.

The number of fires attributed to oil-burning heaters has shown some decrease.

Space heaters were another major cause of fires, particularly in dwellings, but those due to slow combustion stoves and gas-heating apparatus showed little change.

On the extinction of fires the report points out that nearly half of all fires are extinguished with the use of hose reel jets and that these appear quite adequate in a large number of incidents.

* 'United Kingdom Fire Statistics 1960.' To be published annually by HMSO for the Joint Fire Research Organisation, Boreham Wood, Herts, price 12s. 6d., by post 13s. 3d.

Basic Materials

Little Change in Prices

WITH A few exceptions, wholesale prices changed very little in September. Prices of manufactured products showed no change on average between August and September, but the most recent index numbers are subject to further revision. There was a drop of 0.3 per cent in index of basic materials. The provisional price index for home market sales of all manufactured products for September remained unchanged at 116.9 (1954=100). The provisional figure for building and civil engineering materials for September at 152.0 is the same as that for August. The house-building materials index at 153-3 also remains static.

Commodity	Sept., 1960	Aug., 1961	Sept., 1961
Coal	142·0	142·4*	142·3*
Slates	139·2	141·1	141·1
Refractory goods, including bricks	128·7	129·4*	129·4*
Non-refractory goods, including bricks	115·2	122·1	122·1*
Building bricks, common, other than fletton, ex-works	117·9	124·0	124·0*
Building bricks, fletton common, delivered	108·7	117·5	117·5
Glass (other than containers)	121·5	123·4	123·4*
Cement, delivered	113·2	120·0	120·0
Cast stone and cast concrete products	103·5	107·9	107·9
Synthetic resins and plastic materials	88·3	84·3*	84·1*
Paint for building and decorating	108·2	110·6*	111·0*
Steel sheets	126·5	127·2	127·2
Aluminium and aluminium alloy products (extruded and drawn)	129·8	132·3	132·3
Galvanised cisterns, tanks and cylinders	126·9	132·9	132·9
Home-grown hardwood ...	95·2	101·6	101·6
Wallpaper	119·8	123·5	123·5*
Aluminium, virgin ingot, delivered	119·2	119·2	119·2
Copper, ex-ship, wharf or warehouse	94·4	92·9	92·2
Lead, ex-ship, wharf or warehouse	72·5	67·1	66·3
Zinc, ex-ship, wharf or warehouse	111·3	97·7	94·5
Imported hardwood (ex-yard or wharf)	111·0	112·0*	112·2*
Imported plywood (delivered to consumers)	97·7	98·8	98·8*
Imported softwood (delivered to consumers)	106·6	107·6	107·3

* Provisional.

The Worshipful Company of Carpenters

Need for Regular Attendance Stressed by School Director

COMMANDER SIR STEPHEN KING-HALL, the writer and broadcaster, headed a distinguished gathering of guests present at the annual dinner given by the Worshipful Company of Carpenters to precede the annual prize-giving ceremony of the Building Crafts Training School (Gt. Tichfield-street, W1). The ceremony took place in the Carpenters Hall on October 24. The Master, Mr. G. Lewis F. Grece, presided.

In presenting his report for the session 1960-61, the Director of the School, MR. H. G. TILLEY, LRIBA, FRICS, stressed the need for regular attendance. Particularly as in past years the award of prizes and certificates had been influenced by attendances. 'Success in life,' said Mr. Tilley, 'depends entirely upon the student's effort to acquire skill in craftsmanship. By regular attendance students not only learn the best methods but also acquire enthusiasm for good workmanship, which is such an important factor in producing the best result in work which is to last for generations.'

He then spoke in some detail of the work of the school. A slight departure from the normal work in the carpenters' and joiners' class was created last season by a request from the Master of the Company for the production of a simple oak chair and table to be used in the Chapel at Wyatt's Almshouses, Godalming, Surrey. The almshouses, he recalled, were built in 1622 with money left by Richard Wyatt, a past Master. Some very creditable pieces of furniture were produced by the apprentices with whom the work was entrusted.

Theoretical Work

Concluding, Mr. Tilley said that it had to be recognised that there were students to whom the theoretical side of their craft proved in the early days to be rather difficult. He said 'These students should not become disheartened as the power to absorb and apply the theoretical background of their work will almost certainly develop with time if their interest is maintained. Whatever the difficulties they are usually conquerable by the exercise of patient endeavour. Patience, perseverance and experience are the three valuable stepping-stones on the road to success.'

The following students were presented with certificates and awards by Commander Sir Stephen King-Hall:

Sir Banister Fletcher Medal and Prize (£5 5s.) for the best craftsmanship—J. C. Bassett.

LMBA Prize (value £5) together with a citation for the best student in any building subject serving under approved articles of apprenticeship with a firm whose registered office is in the London Region of the NFBTE. —P. W. Barnes.

Barnes Prize (value £6 10s.) for progress and excellence in craftsmanship—A. P. Dey and R. A. Plumb.

Carpenters and Joiners

J. C. Bassett and P. W. Barnes—£4 4s.; A. P. Dey, R. A. Plum, A. F. Ditton, A. J. Toovey and A. Stubbings—£3 3s.; C. Cook, J. F. Reid and D. Bevan—£2 2s.; A. Amer, A. E. Brown and J. Mason—Certificate.

Stonemasons

D. Metcalf—£4 4s.; A. F. Albrice—£3 3s.; M. James and A. Penn—£2 2s.

Plumbers

A. J. Morrell and E. J. Gaunt—£4 4s.; G. Clapson and D. Coatz—£3 3s.; L. J. Brazier and C. J. Wilkes—£2 2s.; R. Tillyer and A. J. Cox—Certificate.

Painters and Decorators

J. Lemon and P. Scanlon—£3 3s.; E. Townsin—£2 2s.; S. C. Smart and S. E. Smart (Father and Son)—Certificate.

International Crane Standards

First Steps in Unification

FROM A CORRESPONDENT

CONFLICTING national standards for materials and equipment can be just as big a barrier to international trade as tariff walls. Nowhere is this more true than in the field of crane manufacture. Most countries (including the UK) have standards for cranes, and at present difficulties arise with the export of cranes from one country to another due, in particular, to the varying methods adopted for rating cranes in respect of their safe working loads.

The first step towards unification of these conflicting standards has now been taken: the International Organisation for Standardisation has set up a new technical committee on cranes and excavators. This committee, which has just concluded its first series of meetings (held at British Standards House, Mayfair) is concerned particularly with terminology, load rating, materials, design, stability, testing and safety.

In the chair at the meetings was Mr. John Baker, chairman of the BSI committee on cranes and derricks. Nearly 40 delegates, from Finland, France, Germany, the Netherlands, Poland, Portugal and the UK attended the meetings, the UK delegation being led by Mr. T. E. R. Torrance, chairman of the main technical committee of the Association of Crane Makers.

Delegates were primarily concerned at this first meeting with reaching agreement on definitions of fundamental technical terms. In addition, they considered proposals made for a standard range of capacities for cranes; these will be further discussed at a future meeting.

Other matters to which the committee will give priority are: Stability requirements for cranes (including consideration of wind loads); testing procedures for cranes; crane ropes and associated pulleys, drums, and so on; crane structures.

A working group was set up to draft proposals initially in respect of the first four of the subjects.

When they have dealt with these fundamentals, the Committee are to consider the establishment of working groups to deal with builders' tower cranes, jib cranes, overhead travelling and bridge cranes, mobile cranes and single bucket excavators.

Coke Appliance Data Sheets

THE EIGHTH issue of supplementary data sheets for the sixth edition of the Coke Burning Appliances Handbook has been published by the Gas Council from 1 Grosvenor-place, London, SW1.

A Building Group's Prizegiving

A Fine Apprenticeship Record

FROM OUR OWN REPRESENTATIVE

PRIZEGIVINGS, even to the recipients, can be the dullest of indoor sports unless brought to life by the variety of programme and quality of speeches. The annual distribution of awards to members of the Taylor Woodrow Group on Friday last made fully worth while the drive back from Southall in the thick of the Motor Show traffic, for it contained both these ingredients in the shape of a mixture of presentations to long-service employees and young apprentices and office workers drawn from the eight companies associated within the group; and in excellent speeches from company representatives headed by Mr. Frank Taylor, chairman of the group, and ending with a maiden speech which it would have been hard to surpass for clarity and content from Mr. W. Stenson, an apprentice, who was thanking Mr. Peter Trench for his address. Tucked into the middle of proceedings was a stimulating report by Mr. 'Pow' Davies, group training officer, who drew attention to the fact that out of 124 mechanical plant and craft apprentices, no fewer than 61 per cent were holders of one or other of the CGLI certificates—a fine record.

A novel award was the presentation of a certificate and £100 for the best submission under the 'suggestion scheme'; this went to Mr. D. Player for a device which prevents hoists from 'hitting the deck' on their downward journey. Mr. Player not only noticed the need but worked out and constructed the device. Mr. Trench's address was a model of its kind—humorous and to the point, which was loyalty to the industry out of which would spring loyalty to the firm. One form that loyalty should take thought Mr. Trench, was to increase production, not necessarily by harder work but by more intelligent application; here time and method study had its place.

Mr. Trench's remarks were received with applause, not least by the 35 employees (whose jobs ranged from director to tug pilot) who received long service awards. Afterwards the large company (which included the Mayor and Mayoress of Southall) inspected an exhibition of work by craft apprentices and students, some of which reached the highest standard.

Nuclear Energy Conference Successor

THE BRITISH NUCLEAR ENERGY SOCIETY will be established on January 1, 1962, It will succeed the British Nuclear Energy Conference which was established in 1955.

Book Reviews

Friends Meeting House ; History of Building Materials ; Estimating and Cost Control ; Prestressed Concrete Cylindrical Tanks

THE FRIENDS MEETING HOUSE. By Hubert Lidbetter, FRIBA. York (William Sessions, Ltd.) Price 35s. net.

IN THIS book Mr. Hubert Lidbetter, himself a Friend and the architect of the British Quaker Headquarters in Euston-road, London, as well as other Meeting Houses, gives an interesting illustrated 'survey of the places of worship of the Society of Friends from the days of their founder George Fox, in the 17th century, to the present day.' It is more than thirty years since Mr. Lidbetter designed and built his first Meeting House, but, as he explains, it was only when he was appointed surveyor to the Six Weeks Meeting in 1935 that he became fully aware 'of the rich heritage of bricks and mortar which the Society of Friends possess.' Here we have the fruits of his researches and travels throughout the British Isles, as well as an illustrated account of Meeting Houses in North America, where Quakerism was early established, mainly through the activities of William Penn, and where to-day it has most adherents.

Friends Meeting Houses, as Sir John Summerson has remarked in his Georgian London, are 'buildings of endearing simplicity.' The earliest ones at least are full of homely vernacular charm, and most of the later more sophisticated examples, designed by architects, have a simple dignity that seems the inevitable embodiment of the Quaker form of devotion—'silent worship and waiting upon God, broken only by the vocal contribution of any member of the congregation when the spirit moves him, or her, to speak or pray.'

Mr. Lidbetter deals fully with the history, siting, planning, construction and architectural character of the Meeting Houses, and in addition to over seventy beautiful photographs (exteriors, interiors and details) includes numerous plans and other illustrations, some from a remarkable book on the subject published in 1820 by William Alexander of York. (A point of interest is that William Sessions, Ltd., the printers and publishers of the present volume, are Alexander's direct successors.) Some of the photographic illustrations are of special interest inasmuch as the buildings have been demolished or are no longer owned by the Society.

This is a book that should appeal not only to Friends and to architects concerned with the design or care of Meeting Houses, but to all lovers of architecture. Sir Albert Richardson contributes an appreciative foreword.

G. J. HOWLING.

A HISTORY OF BUILDING MATERIALS. By Norman Davey. (London: Phoenix Press). Price 65s. net.

DR. NORMAN DAVEY, who was for many years at the Government Building Research Station at Watford, covers more ground than the title of his book implies. It is not only a history of building materials but also a history of the various techniques of their application. His researches cover an exceptionally wide field. He explores the building materials and methods of Ancient Egypt, of Minoan Crete, of Mycenae, of Greece and Rome, and onwards through the ensuing centuries, tracing their development to the present day. With so broad a canvas in space and time his varied information is necessarily conveyed, despite the ample size of the book, with some degree of terseness and compression. There must be much more he could have said had there been room to say it, but he shows an assured grasp of the essential facts and an unfailing facility in concise expression. This is not to say that for a learned and technical work the book is not eminently readable, although it is as a work of reference that it will be subsequently prized.

Much of the information given, dealing as it does with the more primitive beginnings of the building craft, will be of more interest to the archaeologist than of use to a modern practitioner, but architects, concerned with the conservation of ancient buildings, will find this book a valuable companion volume to Dr. Salzman's 'Building in England.' Comparison of a historical survey with the presentation of scientific data is perhaps unfair: the first is less amenable to compression than the other. But the main bones of the history are all here; details may be sought in the pages of the specialists, and the technical information on the nature of materials is notably comprehensive.

The book is divided into twenty-six chapters, each of the first twenty-five dealing with a particular material or technique, its history and its scientific aspect. The twenty-sixth, since, as the author says, a book of this kind should not conclude without reference to new developments, deals briefly with the modern trend. The appendix gives a short historical survey of builders' tools. There is a generous supply of photographs and drawings. To ask that the plates and the relevant text should be more consistently related may show ignorance of the binder's craft and suggest a captious ingratitude for a highly erudite and informative work.

JAMES BURFORD.

ESTIMATING AND COST CONTROL. by James Nisbet, FRICS (London: B. T. Batsford, Ltd.). Price 32s. 6d. net.

JAMES NISBET has long been in the forefront of those advocating a proper system of cost control of building in the planning stage and has been largely responsible for the Bulletins on this subject issued by the Ministry of Education. With the growing awareness of the importance for a full cost planning service, the quantity surveying profession will be in need of text books to ensure an adequate background of training. It comes as no surprise that a book measuring in status to that of a text book should come from James Nisbet, who has given so much thought to the subject.

So long as the author and his associates keep to general principles of cost planning, no one will make any adverse criticism, for the background and broad approach to approximate estimating and cost planning are excellent. The main feature of the book, however, is the detailed appraisal of the system of cost planning based upon cost analysis of past projects. This is, of course, entirely natural, since it is the system which is the author's brain child and for the development of which he has been almost entirely responsible. As a result of this emphasis in the book, it cannot be regarded as a complete text book on the subject but it will undoubtedly provide a most useful aid to teaching and is worthy of close study by all quantity surveyors.

Because of its main theme, this will be a controversial book. The only disagreement in the profession with regard to cost planning is concerned with method. James Nisbet and his supporters are convinced that the intelligent use of cost analyses of previous projects provides an initial cost plan which is quicker and more likely to set a cost target acceptable to the client. The Cost Research Panel of the RICS, on the other hand, favour the preparation of the cost plan by means of approximate quantities. They claim that the use of past cost analyses is restrictive to the architect and that cost analysis should be limited to the statistical comparison of tenders, as it was originally designed to do, but should not be used to set a cost limit upon a new project, which should be estimated entirely upon its own merits.

This book will win many new supporters, as it is convincingly and clearly written. Whatever one's views on the controversial issue, it deserves wide support as an intrument of encouragement in the practice of cost planning.

E. NORMAN HARRIS.

PRESTRESSED CONCRETE CYLINDRICAL TANKS. By L. R. Creasy. (London: Contractor's Record Ltd.) Price 35s. net.

THIS BOOK has been written for the practising engineer to simplify and assist in the complex design of the tanks under consideration. The author's aim is to reduce the time spent in the drawing office on analysis from first principles. A chapter has, therefore, been devoted to basic expressions. This follows an introduction in which the various methods of tank construction are discussed, and a chapter on the materials used in prestressed concrete cylindrical tanks with their permissible stresses.

Among the many aspects of the subject covered are various prestressing systems, some of which are illustrated, examples of completed tanks of complicated design, concrete repairs and roof structures. A brief description of the economics involved is followed by relevant tables, a bibliography and index.

AER Specialist Services

Skilled Men Required for Field and Works Units

LAST FEBRUARY the Secretary of State for War announced the reorganisation of the Army Emergency Reserve which was to be completed by November 1. This was a logical reorganisation following that of the regular and territorial armies, which has brought all the reserve forces more in line with current thought. Units have been streamlined and reduced, and many amalgamations and disbandments have taken place.

The field and works branch of the Army Emergency Reserve has several types of unit, including combat engineer units designed to co-operate with field formations; works units for carrying out larger engineer projects in support of the Army and the Royal Air Force; and specialist teams to cope with highly technical and special subjects. The headquarters of the field and works branch is at Morval Barracks, Cove, and this is its only base. Unlike the Territorial Army the AER does not have any permanent local centres throughout the country.

The AER is designed to provide the regular army with specialist assistance in the event of an emergency in any part of the world. There are two main categories of volunteer: the first provides units required to support the army in limited war, members being liable to be called out without the Government issuing a proclamation; members of the second category form, together with the Territorial Army, a highly trained part of the Army General Reserve.

To carry out their rôle units need active men between the ages of 17½ and 40. Although the accent is on tradesmen, some unskilled men are required and previous service is not essential. General promotion prospects are good and certain qualified tradesmen who are charge hands or supervisors in the electrical, mechanical and constructional industries may qualify for appointment as clerks of works with a minimum rank of s/sgt.

Training Periods

All members of the AER are required to attend an annual training camp which usually lasts for 15 days. Many employers allow time off in addition to the normal annual holiday, and most official departments give extra leave with pay. In addition to the annual camp, members of the first category have to complete 16 one-hour training periods out of camp each year. Where possible this is organised on a regional basis in conjunction with local Territorial Army units and normally this training is spread over two week-ends.

Adequate remuneration is given to those volunteers who undertake such a liability. In category one volunteer private soldiers are paid a total of approximately £100 a year, with corresponding increases for higher rank. This amount includes the annual bounty and training grant of £76. Category two volunteers, because of their reduced liability for call out, are entitled to the same pay, but their bounty is in the order of £12 to £15 a year.

In pursuance of a policy to change the venue of each annual camp, in 1962 the camp will be held at Wyke Regis, near Weymouth, and the accent in training will be on watermanship, floating bridges and rafting, and a mobile tactical radio exercise.

The commander of the Army Emergency Reserve (Field and Works) is Brigadier H. W. Kitson, CBE, and the three largest units under his command are: 111 Corps Engr. Regt. (AER), Lt.-Col. W. C. S. Harrison, RE (AER), Penmar House, 59 Stonegallows, Taunton, Somerset; 38 CRE (Works) (AER), Lt.-Col. C. G. H. Filor, ERD, RE (AER), 26 Shancoole Park, Upper Cave Hill-road, Belfast, NI; and 40 CRE (Works) (AER), Lt.-Col. E. G. Goldring, ERD RE (AER), 'Antheor,' 1 Bloomfield-road, Kingston-on-Thames, Surrey. All inquiries should be made, however, to HQ Army Emergency Reserve (Field and Works), Morval Barracks, Cove, Hampshire.

London County Council

Retirement of Senior Architect

THE LONDON COUNTY COUNCIL has announced the retirement, on November 7, of Mr. Edwin Williams, MBE, FRIBA, senior architect in charge of the building regulations division, after 27 years' service.

On entering the Council's service in 1934, one of Mr. Williams's first tasks was the design and construction, in collaboration with a consultant architect and under the then architect to the Council, of the new north and south blocks of County Hall. During the war, his services in charge of London's emergency water supply and in connection with the training of rescue parties were recognised by the award of the MBE.

After the war, Mr. Williams was placed in charge of the newly-formed building regulations division. In addition, he supervised the repair of war damage to the County Hall. He was also responsible for the north block extension.

In September, 1948, Mr. Williams was given executive responsibility for the progress and construction of the Royal Festival Hall under the direct control of the then architect and deputy architect. He has served on a committee of the Fire Protection Association and on various sub-committees of the British Standards Institution and is the present chairman of the panel of officers revising the constructional by-laws.

The Council, on October 17, 1961, appointed Mr. W. J. Wadey, FRICS, as a Senior Architect to succeed Mr. Williams as head of the building regulations division in the Architect's Department, where he will be responsible for the administration of the London Building Acts and By-laws and other allied legislation generally relating to building applications submitted to the Council. Mr. Wadey is a registered architect.

Marble Arch Improvement

A REVISED LAYOUT for the Marble Arch area of the Park-lane improvement has been approved. The main variation is the provision of three large fountains, which will raise columns of water to a height of 35 ft. and throw a curtain of water 5 ft. high into stainless steel fountain basins 14 ft. wide (instead of the smaller fountains and a Portland stone scheme originally proposed). It has also been decided on the grounds of safety and control, to provide subsidiary lighting in the processional way by means of lens lights let in flush at each intersection of the granite borders forming the paving design; this will adequately meet the need and will also provide an interesting effect at night. The additional cost of these variations is £3,300.

Plastic Panels

EIGHTY glass-fibre reinforced plastic infill panels for experimental use in the Housing Department are to be produced at Wandsworth depot, at a cost not exceeding £1,200.

Road Improvements — Consultants

MESSRS. HUSBAND AND CO., of 58 Victoria-street, SW1, have been appointed as consulting engineers to investigate the planning and preliminary design of the West Cross Route from Holland Park-avenue to just south of King's-road, Chelsea, and Messrs. Rendel, Palmer and Tritton, of 125 Victoria-street, SW1, for similar work in connection with a proposed new road over or alongside the Bexleyheath railway line between Kidbrooke, Woolwich and the county boundary (the Dover Radial Route).

Consultant Structural Engineers

A PANEL of structural engineering consultants in private practice has been drawn up, and in future selection will be made from these for work arising from the Council's building programmes.

Crane Signals in Transfer Form

A TRANSFER VERSION of the standard system of crane signals published recently by the Federation of Civil Engineering Contractors and the National Federation of Building Trades Employers, has now been produced. The shape of the transfer is approximately 4½ in. deep x 8 in. wide, and it is printed in black on a transparent background for display in the cab window. Copies are available from the Federation of Civil Engineering Contractors, price 6d. each. The crane signals are also available in laminated plastic, the small pocket sized edition costing 9d. each, and the larger size 3s. 6d. each.

Town Planning Practice in Australia

Some Problems Facing the Profession

ADDRESSING the overseas section of the Town and Country Planning Summer School* at Reading on September 14, MR. NIGEL W. ASHTON, FRAIA, AASTC, FAPI, enumerated the major problems that were faced by the town planning profession in Australia. These included (a) the present concentration of population in the metropolitan regions and to some extent in the large manufacturing towns; (b) the lack of any clear-cut and agreed aim in the development of Australia which could be accepted as a guide on which to base any overall land use policy; (c) the failure by and large of the decentralisation policies of the various governments in Australia; (d) the speculation in land and excessive subdivision which had been most active in certain parts of the continent; (e) the lack of sufficient finance for acquisition of the necessary land to enable sound planning to function; and (f) the lack of adequate control of land use on major arterial roads throughout the more populous parts of the continent.

Mr. Ashton then went on to consider the planning now being carried out in each state. In New South Wales, for example, all the major provincial towns, with some important exceptions, had either prepared or were preparing schemes for their growth and development and there was a growing awareness of the importance of shire and municipal councils to co-operate in preparing schemes for both the town and the countryside in conjunction.

Parklands and Main Roads

The financing of the necessary acquisition of land to enable effective town planning to take place was difficult. The state Government had agreed to share the cost of acquisition of vacant lands reserved for parks and open spaces and for new roadways. The provision of main roads was a function of the State Department of Main Roads, while it had been thought until recently that the provision of parklands was a matter for local government. With, however, other large schemes being finalised, the question of state support for the acquisition of large areas for regional open space as parklands was being canvassed, and no decision had been reached on this vexed question.

Premature subdivision of land and its sale to numerous persons had been a problem in Australia for the last eighty years. The peak of this type of subdivision seemed to run in cycles and be a phenomenon of boom conditions. The effect of this had been to provide land in urban lots far in excess of real requirements, leading to scattered building which was quite uneconomic to service. Worse still, the patterns of subdivisions were often such that there was no determination of a new system of major roads, parks or other land uses which were essential for any town.

The powers contained in the planning provisions of the Local Government Act were, said Mr. Ashton, quite capable of preventing this practice, and a great deal had been done around major cities to prevent this happening, but in coastal regions the practice had been rife in recent years. The Act provided that the council of an area decided on its own volition to prepare a scheme, though there were provisions for the Minister to direct a council to prepare a scheme. This was a rarely used power, though the Minister recently directed one council in a very strategic situation as far as planning was concerned to prepare a scheme, and pending this being done took control of large subdivisions himself.

Ribbon Development

Another problem still not being adequately dealt with was the control of ribbon development along the main roads and highways. Even though the power existed for this in the planning legislation of the state, it was extremely difficult to get local authorities with whom the decision often rested, to take an overall rather than a parochial view of this problem.

Much sound work had been done in the planning field in the state, though there were still great pressures for uncoordinated expansion in the metropolitan and other large cities. Such pressures had to be resisted if the future development of cities was to be on a sound basis. There was still no really effective means of assuring that co-operation and exchange of views between local and state government departments which was so necessary for effective planning. What was more important, there was no machinery for making important departments of state responsible in part for the planning scheme.

After briefly reviewing the position in each state and in Canberra, Mr. Ashton pointed out that planning practice in Australia had certain worthwhile features. There was, he said, the well accepted principle, acknowledged and acted upon in each state, that the large city needed to be planned on a metropolitan scale with finance from the whole metropolis. This was an achievement of no mean order, for many other countries had not yet accepted this important fact. When, however, it came to regional and national planning the picture was not so bright. Far greater recognition was needed of the importance of adequate planning on the national and regional level before much of the planning now being done could be based on a sure foundation.

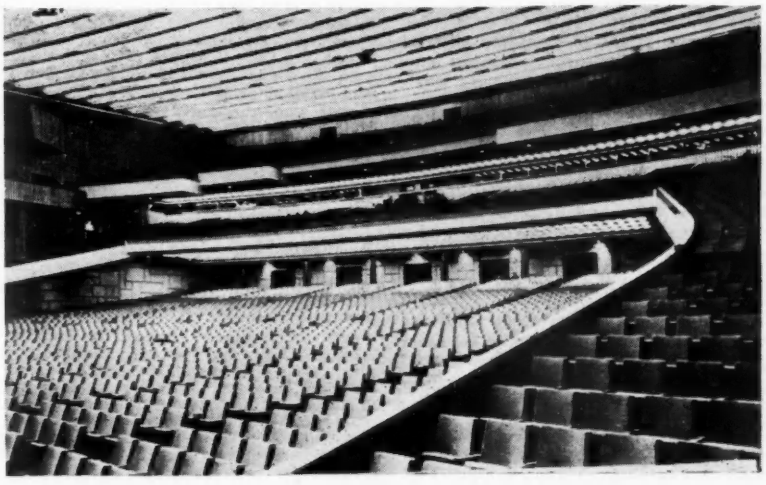
It was essential too, concluded the speaker, that more persons of high calibre be attracted to the profession. There were courses in town planning at post-graduate level in most states, but there was still a grave shortage of young men and women of the type and training necessary going into the profession. This did not augur well for the future.

* Mr. Ashton's paper, 'Town Planning Practice in Australia,' was submitted to the overseas section of the Town and Country Planning Summer School, sponsored by the Town Planning Institute and held at Reading University from September 12 to 16.

High Tenders in Yorkshire

THE HOUSING SURVEYOR to Easingwold rural council said that builders tendering to the council for the erection of six houses were 'holding a pistol to the council's head.' The council had invited tenders from 20 builders who had worked for them previously but only three firms had accepted, all of whom had quoted over £12,000, whereas the housing surveyor had estimated for £10.000. None of the tenders was accepted by the council and the matter was passed to the housing committee.

CONGRESS HALL, RUSSIA.—*The interior of the main congress hall in the large Kremlin theatre, where the 22nd congress of the Soviet Communist Party opened on October 17. With a seating capacity of 6,000, the modern designed building represents a departure from the elaborate and decorated style of much of the Soviet post-war public architecture*



Building in the Isle of Man

Financial Help for Tourist Accommodation Recommended

FROM A CORRESPONDENT

IF A REPORT of a sub-committee of the Executive Council of the Manx Government is approved, there will be a big building boom in the Isle of Man.

The sub-committee was appointed to investigate and report upon the assistance that might be given, or the action that might be taken by the Government towards the building of new hotels and motels, or the extension of existing hotels, and towards the conversion of other accommodation into tourist accommodation.

In other words, more provision is required for high spending visitors. It is considered that the whole question should be treated as 'a matter of grave urgency, which cannot admit of further delay in facing up to modern demands.' And, the report says, 'modern demands could only be met by generous Government assistance and encouragement of those persons willing to take justifiable risks.'

The evidence clearly indicated, according to the report, that there was a great demand for double and single rooms complete with private bathrooms or showers, toilet, h. and c. water and central heating, and that there was also a growing demand for private suites.

The concensus of opinion was that more hotels providing private amenities were required, the present inadequacy being due largely to the shortness of the visiting season, which did not allow of reasonable profits being ploughed back into improving the properties.

It is pointed out that owners of larger residential hotels were willing to take a justifiable risk if reasonable Government assistance and concessions were granted. The most economic unit for a hotel should be at least 75-100 bedrooms, but in any event a minimum of 50 bedrooms.

Private Enterprise Favoured

The sub-committee add that they strongly favour the encouragement of private enterprise to erect new hotels, and to improve existing hotels, and, they add: 'If, however, private enterprise fails to take the initiative in areas requiring development or improvement, direct competitive action by the Government would be warranted.'

Consideration should be given to existing blocks of boarding houses being converted into one unit and reconstructed to provide first-class accommodation. If private enterprise failed to do this, Government might embark upon a pilot scheme.

It is pointed out that motels were not required, but there was sufficient demand in certain parts for the erection of furnished service flats or groups of furnished self-serviced holiday bungalows with adequate restaurant and garage facilities available which could form part of a scheme in connection with an existing hotel.

On the question of finance, and concessions, the sub-committee consider that this should be based on the scheme of loans and grants in operation in the Republic of Ireland and should be not less favourable. Legislation would be required to give effect to income tax and rate allowances. Grants of 20 per cent of the cost are suggested, covering only capital improvements and repairs.

Applications should be for a complete scheme costing at least £50,000, and should not exceed 200 bedrooms, but carried out in agreed stages. Loans should be available at 5 per cent interest and the Government should give an interest grant so that loans would be interest free up to a five per cent maximum for the first five years. Income tax concessions are suggested in respect to capital expenditure.

Anodised Aluminium

International Conference at Nottingham

THE FIRST CONFERENCE on the techniques and applications of anodising on aluminium to be held in the United Kingdom, and the first international conference devoted exclusively to this subject, was organised by the Aluminium Development Association at the University of Nottingham from September 12 to 14. Subjects discussed included 'Anodising from the Users' Viewpoint,' 'Special Surface Characteristics' and 'Advances in Anodising Techniques.'

Progress with anodising on aluminium and suitable aluminium alloys has moved rapidly over the last ten years with considerable improvement—especially over the latter part of that period—in the ranges of finishes and of materials which can be anodised. The quality of anodised aluminium is being continually improved for decorative effect, enhanced resistance to wear, better corrosion resistance and electrical insulation. This conference was called by the Aluminium Development Association because it was felt that in view of this progress the time had come for discussion between users, anodisers and producers to exchange views on current developments.

The Association intends to publish a report of the conference, but in the meantime a limited supply of pre-prints is available from the ADA, at 33 Grosvenor-street, W1, price one guinea a set.

Leadwork Competition

Results for 1961

THE WINNERS in the fifth in the series of National Leadwork competitions, sponsored by the Lead Development Association, are listed below. Entries were divided into four areas, and monetary prizes or inscribed tankards were awarded to each plumbing teacher and student submitting winning entries. The national trophy will be presented by Sir William Holford, PRIBA, at the Building Exhibition on November 22 at 11.30 a.m.

NATIONAL WINNER AND FIRST PRIZE, AREA TWO.—Wolverhampton and Staffordshire College of Technology, A. Johnson (plumbing teacher), A. R. Sargeant (student).

AREA ONE.—First. Stow College of Engineering, R. McGeoch (teacher), J. Hill and W. O'Brien (students). Second: Sunderland Technical College, S. F. Liddle (teacher), N. Place and G. Barkes (students). Third: Wigan and District Mining & Technical College, K. Walker (teacher), R. Naylor and F. McKnight (students).

AREA TWO.—Second: Wakefield Technical and Art College, C. W. Exley (teacher), G. W. Story and R. Bradley (students). Third: Chance Technical College, B. J. Mansell (teacher), A. Lavell and R. Clark (students).

AREA THREE.—First: Willesden Technical College. G. J. Nash (teacher), A. J. Dean and R. M. Mallick (students). Second: Redhill Technical College, H. T. Tucker (teacher), M. Turnbull (student). Third: East Ham Technical College, W. J. Dale (teacher), A. J. Roberton (student).

AREA FOUR.—First: Bridgwater Technical College, H. G. Bell (teacher), A. Innalls, B. Burt and J. Warren (students). Second: Llandaff Technical College, K. S. J. Hillard (teacher), R. Cartwright, P. Williams and P. Jones (students). Third: Bournemouth Municipal College of Technology and Commerce, A. Sadler (teacher), D. James, D. Shutler and P. Frampton (students).

Old People's Flatlets

Dr. Hill Attacks the Critics

DR. CHARLES HILL, Minister of Housing and Local Government and Minister for Welsh Affairs, said in Swansea on October 18 that he hoped to publish shortly the report of a study on living in old people's flatlets based on the working of six flatlet schemes in England.

'It makes one angry to hear flatlets referred to as sub-standard accommodation or to read, as I did recently, that flatlets "infringe the human requirements of old people,"' he said after opening a new block of old people's flatlets at West Cross, Swansea.

'All the tenants were interviewed and a careful record was made of their reactions to their new surroundings and to the amenities and facilities provided for them,' continued the Minister. 'On the whole old people who have lived in flatlets are quite delighted with them.

'In these flatlets the terrors of loneliness have been largely banished and there will always be a helping hand available. But at the same time everyone is free to come and go as he or she chooses, and will be able to entertain their neighbours or friends in their own homes or in the communal lounge. Or, if they prefer it—as we all want to do from to time—they can keep themselves to themselves. They do their own cooking, but the flatlets are designed so as to relieve them of some of the chores that weigh heavily on old people—cleaning out the grate, filling up the coal bucket and so on. The warden obviously plays a vitally important role in the success of an old people's flatlets scheme.'

THE BUILDER LONDON MEASURED RATES

These prices for new building work in London normally appear in the first issue of each month only. The prices are inclusive of all allowances for National Insurance, Holidays with Pay and Public Holidays, Third Party Risk, Travelling Allowances and Guaranteed Week. They cover a profit of 10 per cent on the prime cost without any addition for establishment charges.

These rates do not include for Foremen and other preliminary items, such as office, sheds, plant and scaffolding, etc., and these must be added accordingly.

The basic cost of the labour and materials used in arriving at the rates has been derived from the 'Current Prices of Materials' published in *The Builder*.

The data given are copyright. While every endeavour is made to ensure accuracy, we do not hold ourselves responsible for any error that may occur.—EDITOR.

EXCAVATOR

All hand labour	*Per yd. cube*									
	Loose earth		*Firm soil*		*Stiff clay*		*Chalk and flints*		*Rock, etc., no blasting*	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Surface excavation to shallow depths	9	4	11	10	13	8	20	7	52	8
Bulk do. or large trenches, etc., not exceeding 5 ft. deep ...	8	6	10	9	12	5	18	3	47	11
Trenches do. under 4 ft. 6 in. wide and do.	11	6	13	11	16	1	23	9	62	10
Pier holes and similar under 6 ft. square and do.	12	11	16	1	18	8	26	6	70	11
Additional throw for every 5 ft.:										
Bulk excavation	4	1	4	1	6	0	6	0	6	2
Trench ,, ...	5	7	5	7	7	6	7	6	7	8
Pier ,, ...	6	3	6	3	8	6	8	6	9	7
Return, fill and ram	5	9	5	9	7	8	7	8	10	0
Wheeling surplus n.e. 100 yds. run and depositing	9	2	9	2	9	2	9	2	10	6
Underpinning in trenches ...	15	0	20	9	24	2	34	6	—	

	s.	d.
Loading lorries and transporting to tip ... ... Yd. cube	18	0
Basketing out and depositing ... ... ,,	11	6
Planking and strutting to sides of surface or basement trenches:		
Depth up to 5 ft. ... ... Ft. sup.		7
,, ,, 10 ft. ... ... ,,		9
,, ,, 15 ft. ... ... ,,		10
Hardcore:		
Filled-in layers and consolidated ... ... Yd. cube	24	6
do. 4 in. thick ... ... Yd. sup.	3	7
do. 6 in. thick ... ... ,,	4	9

CONCRETER

	Basic yard cube rates			
	1:12	1:3:6	1:2:4	1:1½:3
Aggregate	1½ in. all-in	1½ in.	¾ in.	½ in.
Concrete in normal foundations: (minimum 8-ton cement loads)—	s. d.	s. d.	s. d.	s. d.
Portland cement standard specification	69 0	77 8	85 6	93 7
Portland cement rapid hardening	70 3	79 6	88 0	96 11
Water-repellent cement	73 0	83 5	93 9	104 1

Add to above basis for:	s.	d.
4 in. surface beds ... ... Yd sup.		8½
6 in. ,, ,, ... ,,		9½
(If above two items worked around mesh reinforcement, add 6½d. per yd. *super*.)		
Foundations in underpinning in short lengths ... Yd. cube	19	9
Beds and flaunchings to drains ... ... ,,	9	4
Pier or stanchion foundations—small ... ... ,,	4	9
Sundry small items not exceeding 3 ft. cube in plinths, curbs, padstones, etc. ... ... ,,	27	0

REINFORCED CONCRETE

ADD to above 'Basic Yard Cube Rates'

Reinforced concrete including working around reinforcement between formwork and hoisting to normal levels :	s.	d.
Foundations and similar ... ... Yd. cube	6	3
Isolated stanchion or pier bases ... ... ,,	6	3
Walls not exceeding 6 in. thick ... ... ,,	31	3
,, ,, ,, 12 in. ,, ... ,,	21	10
Suspended floors or flat roofs 4½ in. thick ... ... Yd. cube	27	0
,, ,, ,, ,, 6 in. ,, ... ,,	20	3
,, ,, ,, ,, 9 in. ,, ... ,,	17	3
(Beams attached to floors or flats, *add* 7/9 yd. cube)		
Isolated beams or lintels average 72 sectional inches ... ,,	37	6
Do. average 144 sectional inches ... ... ,,	30	2
Columns or stanchions average 72 sectional inches ,,	43	9
,, ,, ,, ,, 144 ,, ,, ,,	39	4
Staircases and landings, etc. ... ... ,,	65	6
Shell roofs average 3 in. thick, including labour forming curved surface ... ... ,,	156	0
Hollow tile floors :		
Hollow clay tiles 4 in. thick with 1 : 2 : 4 concrete ribs at 14 in. centres with filler tiles and 1½ in. fine concrete screed (excluding reinforcement and form work) ... ... Yd. sup.	20	0
All as above but 6 in. thick clay tiles ... ... ,,	24	3
,, ,, ,, ,, 9 in. ,, ,, ,, ... ,,	30	3
Sundry items :		
2 in. concrete (1 : 2 : 4) blinding bed ... ... Yd. sup.	5	3
Spade finish to concrete beds ... ... ,,		10½
Trowel ,, ,, ,, ... ,,	2	1
Laying to falls and currents ... ... ,,	1	3
Hacking concrete by hand ... ... ,,	3	2
Hacking concrete by use of proprietary liquids ... ,,	1	9
Damp-proof membrane in three coats with sanded key ... ... ,,	5	3
⅜ in. Bitumen expansion joints 4 in. deep in floors ... Yd. run	4	3

	Mild steel rods (round) cut, bent, hooked, wired and fixed complete (Ex. London Stock)							
	¼ in.		⅜ in.		½ in.		⅝ to 1 in.	
Reinforcement :	s.	d.	s.	d.	s.	d.	s.	d.
Floors beams laid in only	94	0	82	2	76	11	71	6
,, ,, wired into frames...	107	6	95	8	90	6	85	0
Walls wired into frames	107	6	95	8	90	6	85	0
Columns wired into frames ...	107	6	95	8	90	6	85	0
Staircases wired into frames ...	110	3	98	5	93	3	87	8

Steel mesh fabric reinforcement :	s.	d.
Laid in floors including laps and straight cutting and wiring, etc. :		
Weight 1.83 lb. per yd. sup. ... ... Yd. sup.	3	4
,, 4.71 lb. ,, ,, ,, ... ,,	4	10
,, 7.32 lb. ,, ,, ,, ... ,,	7	6
Raking cutting worth 6 in. material cost per ft. run		
Circular cutting worth 9 in. material cost per ft. run.		
Formwork (Sawn) including strutting, easing and removal and average four times use of timber :		
Soffit of floors and flat roofs ... ... Yd. sup.	18	6
Sloping soffits of stairs ... ... ,,	25	0
Barrel-vault soffits of floors and roofs ... ... ,,	23	6
Vertical sides of walls ... ... ,,	17	6
Battering sides of walls ... ... ,,	23	0
Columns ... ... Ft. sup.	2	8
Lintels and beams ... ... ,,	2	10
Staircase strings cut to tread and riser ... ... Ft. run	4	0
Edges of concrete floors, etc., up to 12 in. deep per inch in height ... ... ,,		2½
Rebates or similar per inch girth up to 6 in. girth ,,		3
Raking cutting ... ... ,,		9½
Extra cost for wrought shuttering and labour rubbing down to leave fair face on concrete ... Yd. sup.	2	10
Pre-cast Concrete (1 : 2 : 4) *including fair face :*		
4½ in. x 6 in. reinforced lintels ... ... Ft. run	3	4
9 in. x 6 in. ,, ,, ... ,,	5	9
9 in. x 9 in. ,, ,, ... ,,	9	4
Steel Formwork :		
Steel shuttering forms with patent expanding floor centres and telescopic props not less than four times use on each job with continuous use ... Yd. sup.	14	0

Partitions : (Minimum 100 yd. super)	Yd. super rates			
	2 in.	3 in.	4 in.	6 in.
	s. d.	s. d.	s. d.	s. d.
Clinker concrete slab partitions in cement mortar	10 4	12 9	15 0	—
Cranham terra cotta slab partitions in cement mortar	14 8	17 8	20 8	—
Moler partition block partitions in cement mortar	20 5	23 8	26 8	—
Thermalite-Ytong partition blocks in cement mortar	—	15 8	19 4	28 6
'Phorpres' hollow clay partition blocks in min. of 6-ton loads ...	10 9 (2½ in.)	12 9	16 1	26 2

Cuttings :

Raking cutting and waste = ⅓ of ft. sup. rate
Circular ,, ,, ,, = ½ of ft. sup. rate
Cutting around openings = ⅙ of ft. sup. rate
Cutting and bonding at angles, intersections and ends all at 6d. ft. run.

BRICKLAYER	Yd. super rates			
	Plain flettons	Rough stocks	Second stocks	Blue wire-cuts
	s. d.	s. d.	s. d.	s. d.
Brickwork in cement mortar (1 : 3) reduced to one brick thick	39 6	55 0	63 9	95 0
Deduct if in 1 : 1 : 6 cement-lime mortar	10	10	10	10
Add if in :				
Filling in openings	6 3	6 3	6 6	8 1
Backing to masonry	3 1	3 1	3 4	4 0
Building overhand	2 0	2 0	2 1	2 5
Raising on existing work	3 1	3 1	3 4	4 0
Circular on plan to quick sweep...	6 0	6 0	6 4	7 0
Small detached piers, plinths, etc.	9 2	9 2	9 8	11 6
Underpinning	6 0	6 0	6 6	7 9
Brick-on-edge walls	14 2	19 4	22 7	—
Half-brick sleeper walls honeycombed	14 11	20 0	—	—
Half-brick walls	23 10	31 9	36 4	55 4
do. with fair face and pointing both sides as work proceeds	27 4	—	40 0	59 8
One-brick wall with fair face and pointing both sides as work proceeds	45 4	—	69 6	102 4
11 in. cavity brick wall with two half-brick skins with 2 in. cavity and three galvanised iron twisted ties to every yd. sup.	51 6	—	76 0	—

		s. d.
Sundry items :		
Horizontal double slate damp-proof course ...	Ft. sup.	3 8
Vertical ,, ,, ,, ,, ...	,,	4 6
Hessian-base bitumen damp-proof course	,,	1 7
Levelling and preparing for raising on	,,	1 2
Cutting, toothing and bonding new to old	,,	4 6
Wedging and pinning with slates in underpinning ...	,,	5 8
Rough cutting	,,	7
Cutting and fitting brickwork around steel	,,	7
Bed and point frame one side	Ft. run	4½
Rough cutting squint or birdsmouth	,,	7
Labour plumbing angles on faced work	,,	3
Rake out and point to lead flashing	,,	8
,, ,, ,, ,, stepped flashing	,,	11½
Cutting groove for skirting and point	,,	1 9
Shallow chases for small pipes and conduit	,,	1 11
Metal reinforcement 24 gauge 2½ in. wide	,,	5
Faced work : (Flemish bond) :		
Add or deduct for every 10s. per 1,000 difference from basic price of common bricks in Flemish bond in solid work	Yd. sup.	9
do. to half-brick wall in stretcher bond	,,	6½
Add for extra labour to each side in facings and pointing as work proceeds	,,	3 6
do. butt joints raked out and pointed with special mortar	,,	6 9

If built in English bond, add 12½ per cent to above items.

Labours :		
Fair cutting	Ft. run	1 3
Fair circular cutting	,,	1 6
Fair squint or birdsmouth cutting	,,	1 11

		9 in. wall	14 in. wall
Copings :		s. d.	s. d.
Brick-on-edge coping in flettons finished fair and pointing as work proceeds ...	Ft. run	2 8	3 7
Add for every increase by 10s. per 1,000 in cost of superior bricks	,,	1	1½
Add for two courses of roofing tiles under and cement weather fillets on both sides	,,	4 0	4 9
Cills :			
Two courses of roofing tiles laid breaking joint in cement mortar, set weathering and pointing ...	Ft. run	4 0	
Arches :			
Extra over fletton brickwork for brick-on-end flat arch 4½ in. on soffit and 9 in. high in facings p.c. 350s. per 1,000 and pointing	Ft. run	3 9	
Extra over fletton brickwork for fair axed arch in stock facings p.c. 350s. per 1,000 and pointing (cuttings measured separately)	Ft. sup.	9 9	

CURTAIN WALLING

Curtain walling of hollow, extruded, aluminium alloy mullion and transom units fixed together to form a grid to conventional steel and concrete framework, including glazing complete and a reasonably priced infilling panel and subject to the number of vents, etc., required, a fair average price is from 23/- to 30/- per ft. sup.

PAVIOR

	Yd. super rates			
	½ in.	¾ in.	1 in.	1½ in.
	s. d.	s. d.	s. d.	s. d.
Cement screed (1 : 3) to receive pavings	4 10	5 9	6 8	7 8

		d.
Add to above for :		
Trowelling smooth	Yd. sup.	8
Narrow widths or small quantities — add 25 per cent. to plain surfaces : Laying to falls	,,	5

	Yd. super rates			
	1 in.	1¼ in.	1½ in.	2 in.
	s. d.	s. d.	s. d.	s. d.
Granolithic paving (1 : 2½) laid on concrete	9 6	11 0	13 3	14 6

		s. d.
Add to above :		
Narrow widths or small quantities—add 25 per cent. to plain surfaces.		
Surface hardening with three coats of silicate of soda	Yd. sup.	1 8
Carborundum finish with 2 lb. per yd. sup. trowelled in	,,	3 3
¾ in. skirting 5 in. high covered at bottom and fair top edge	Ft. run	3 0
Mitres and ends—8d. each.		
Composition flooring ½ in. thick	Yd. sup.	18 0
Terrazzo paving ⅜ in. thick	,,	45 0
Rubber flooring ¼ in. thick	,,	65 0

ASPHALTER

		Mastic BSS 988	Natural rock BSS 1162
Asphalt roofing :		s. d.	s. d.
¾ in. flat to falls in two thicknesses on felt underlay on prepared screed	Yd. sup.	15 0	21 0
do. in small quantities or narrow widths	Ft. sup.	2 1	2 11
6 in. high skirting with angle fillet and splayed edge at top	Ft. run	2 8	3 2
External angles on do.	No.	8	8
Internal angles on do.	,,	8	8

		Mastic BSS 1097	Natural rock BSS 1418
Asphalt Damp-Proof Course and Tanking :		s. d.	s. d.
Vertical damp-proof course in 2 thicknesses	Yd. sup.	22 0	28 6
do. in narrow widths	Ft. sup.	2 8	3 6
¾ in. Horizontal damp-proof course in two thicknesses	Yd. sup.	15 0	21 0
do. in narrow widths	Ft. sup.	1 11	2 8
Vertical tanking in three thicknesses ...	Yd. sup.	26 3	33 0
1½ in. Horizontal do. in three thicknesses	,,	20 3	30 8
Labour double angle fillet	Ft. run	1 5	1 5

DRAINLAYER

	Per yd. run Depth of trench				
	2 ft.	3 ft.	4 ft.	5 ft.	10 ft.
	s. d.	s. d.	s. d.	s. d.	s. d.
Excavate trench, part return fill and ram and remove surplus, inc. planking and strutting. (In firm soil—if in clay or chalk adjust in accordance with previous excavation rates)	9 0	23 9	31 8	39 6	117 0

	Per yd. run		
	4 in.	6 in.	9 in.
	s. d.	s. d.	s. d.
Concrete (1 : 6–1½ in. agg.) 12 in. wider than external diameter of pipe in 4 in. bed and benching up on both sides	8 9	11 8	12 5
do. but 6 in. bed and do. ...	10 6	12 5	14 11
do. but 4 in. bed and surround to pipe	12 9	15 10	21 0
do. but 6 in. bed and surround to pipe	17 1	20 10	26 1
	Per ft. run		
Salt glazed drain pipes laid and jointed in trench (Minimum two-ton loads) :	4 in.	6 in.	9 in.
	s. d.	s. d.	s. d.
'Seconds'	2 11	4 1½	6 7
'Best'	3 2	4 7	7 5
'Best Tested'	3 11½	5 8	9 5
'British Standard'	3 5	4 10½	8 0
'British Standard Tested'	4 2	5 11½	9 10
Extra for bends 'Best' quality	4 5	6 7	19 0
Extra for junctions 'Best' quality	7 10	11 1	23 11
Cast iron drain pipes to BSS 437 laid and jointed with molten lead in trench	15 6	22 9	—
Extra for :			
Short lengths	4 3	5 4	—
Bends and extra joints	23 6	60 6	—
Junctions and do.	48 3	105 8	—
Cast-iron gulley trap with 9½ in. x 6½ in. grating and joint	46 6	—	—
Cast-iron rainwater shoe with vertical inlet, inspection door and bedding and joints ...	71 9	—	—
Cast-iron inspection fittings with single branch fitting one side	167 0	—	—

	Per ft. run		
	3 in.	4 in.	6 in.
	s. d.	s. d.	s. d.
Pitch fibre pipes to BS 2760 and laying and jointing in trench (in loads of £60 to £250)	2 7½	3 5	6 4

		4 in.	6 in.
Manhole items :		s. d.	s. d.
Brown glazed stoneware, straight, half-round channels	Each	5 7	8 0
do. ordinary channel bends ...	„	12 5	17 9
Three-quarter section curved channel bends with splayed ends	„	15 1	22 8
Cast-iron heavy galvanised steps	Each		13 6
Bedding and sealing medium weight manhole covers and frames (cost of cover to add)...	„		11 0
do. heavy road covers and frames	„		14 6

MASON

		Per ft. cube		
		Bath	Portland	York
		s. d.	s. d.	s. d.
Stone and all labours fixed in :				
Ashlar average 6¾ in. on bed ...	Ft. sup.	34 4	39 3	41 0
Moulded string course 9 in. x 6 in.	Ft. run	29 9	32 6	35 6
Moulded cornice 18 in. x 9 in. ...	„	75 0	81 3	84 6
Weathered and throated cills :				
9 in. x 3 in.	„	18 9	20 0	21 7
12 in. x 6 in.	„	37 6	39 1	42 0
Weathered and throated copings:				
12 in. x 3 in.	„	20 0	22 0	23 0
14 in. x 6 in.	„	40 0	45 0	46 6
Plinth rubbed top and face size :				
4½ in. x 9 in.	„	20 6	22 9	22 0
Plain steps, size 12 in. x 6 in. ...	„	—	—	37 6
„ „ „ 14 in. x 2 in. ...	„	—	—	17 6
Riser, size 2 in. x 4 in. ...	„	—	—	8 6
2 in. Sawn paving edges squared in random sizes	Yd. sup.	—	—	103 0
Supplied only :				
Templates and cover stones coped edges	Ft. cube	—	—	35 3

ROOFER

	Yd. sup.
	s. d.
Bituminous built-up roofing in two layers of felt, the first layer 45 lb. and the second 55 lb. to BS 747, covered with limestone or granite chippings n.e. ¼ in. thick	10 6
All as above but in three layers, the first and second layers in felt 45 lb.	14 6

	Steel Tees at	
	2 ft. 0½ in. centres	4 ft. 0½ in. centres
2 in. compressed straw building slabs in standard sizes fixed complete with 18G steel tees with fixing clips to steel structure to form roof decking :	s. d.	s. d.
Areas of 50–100 yds. sup.	29 0	22 4
„ 101–250 „	28 0	21 9
„ 251–750 „	27 3	21 3
„ Over 750 „	26 5	20 3
If 16G steel tees are used—Add to above ...	1 5½	9

Welsh slating	Per square		
	16in.x8in.	18in.x10in.	20in.x10in.
	s. d.	s. d.	s. d.
Laid with 3 in. lap and 2 zinc nails each slate	391 0	420 0	519 0
Additional labours:			
Top edge cutting... ... Ft. run	10	9½	9
Square abutment do. ... „	10	9½	9
Double course at eaves... „	1 6	1 4	1 3
Raking, cutting and waste „	1 0	11½	11
1½ in. x ¾ in. slate battening for last ... ... Per sq.	39 9	36 0	32 3

Roof Tiling	Per square		
	Berkshire hand-made	Stafford machine made	Concrete Tiles
	s. d.	s. d.	s. d.
Roof tiling with 10½ in. x 6½ in. tiles laid to a 4 in. gauge, every fourth course fixed with two galvanised nails	270 0	260 0	167 6
1 in. x ¾ in. tile battening for last	43 0	43 0	43 0
Additional labours:			
Top edge cutting ... ... Ft. run	11	10	9
Square abutments do. ... „	11	10	9
Raking cutting to hips ... „	1 1	1 0	11
Eaves course ... ... „	1 1	1 0	11
Half-round ridge and hip tiles ... „	3 3	3 1	2 11

CARPENTER AND JOINER

	Ft. cube			
	Plates	Joists	Rafters & Partitions	Roof trusses
	s. d.	s. d.	s. d.	s. d.
Softwood carcassing, including all waste, nails, hoisting and fixing	18 4	21 8	25 0	29 3

	Per square		
	¾ in.	1 in.	1¼ in.
	s. d.	s. d.	s. d.
Boarding and Flooring: (Softwood):			
Rough boarding to flats and roof... ...	139 0	178 0	217 0
Softwood plain edge flooring cleaned off	171 0	193 0	224 0
Tongued and grooved flooring cleaned off	187 0	217 0	263 0

		s. d.
Extra for 2 in. x 3 in. average firrings	Per sq.	89 0
Herringbone strutting to 2 in. x 8 in. joists	Ft. run	2 0
1 in. gutter boarding and bearers	Ft. sup.	4 2
Raking, cutting and waste on 1 in. flooring	Ft. run	10
Composition Boards, etc.:		
⅛ in. hardboard to BS 1142 fixed to vertical battens	Yd. sup.	7 1
½ in. insulation board to BS 1142 do. do.	„	7 3
1 in. woodwool slabs fixed to flat or sloping soffits	„	10 0
2 in. compressed straw building slabs in standard sizes fixed to wood bearers to flat or sloping surfaces in quantities of 101 to 250 yds. super	„	15 5
¼ in. flat asbestos sheeting fixed vertically	„	11 6

Wood Block Flooring:

		s. d.
1 in. nominal West African mahogany flooring laid herringbone pattern in mastic...	Yd. sup.	36 0
1 in. do. Agba	„	36 0
1 in. do. Sapele	„	38 0
1 in. do. Beech	„	41 0
1 in. do. Rhodesian Teak	„	54 6

Extra for preparing and polishing 2/3 yd. sup.

	Sectional area		
	n.e. 4 in.	4–6 in.	ex. 6 in.
Skirtings:	s. d.	s. d.	s. d.
Softwood skirting with rounded or moulded edge, planted on including all labours in short lengths, mitres, etc., per in. in sectional area	4	3½	3

Labours over 6 in.—Mitres=1 ft. run. Return mould ends=1 ft. 6 in. run
Sawn grounds nailed 3½d. ft. run. If plugged + 7d. ft. run.

	Ft. super	
	Large sqrs.	Small sqrs.
Sashes and Frames: (Softwood):	s. d.	s. d.
1½ in. rebated, rounded or moulded fixed	4 0	6 3
2 in. „ „ „ „	4 5	6 6
Add for hanging on butts ... ... each	3 0	3 0
Double-hung sashes and frames with oak cills, purpose-made and not less than 1 doz. in each order: Quantities under 1 doz.—add up to ½ according to quantity. (Average size 4 ft. x 5 ft.)	11 9	15 9

Extra cost of boxed mullions 1s. 1d. ft. sup.
Extra for hanging sashes with lines, weights and axle pulleys 50s. each.

	Ft. super			
	1¼ in.	1½ in.	1¾ in.	2 in.
Doors: (All-purpose-made) (Softwood)	s. d.	s. d.	s. d.	s. d.
Softwood skeleton framed with hardboard flush both sides (standard internal pattern)	4 0	4 5	4 10	5 4
Framed, ledged and braced	—	5 7	6 9	7 0
Four panel square framed both sides	5 4	6 1	7 3	7 6
Add for each side moulded on last ...	6½	6½	6½	6½
do. flush framed	1 1	1 2	1 4	1 4
do. bead and butt do. ...	1 4	1 5	1 7	1 7
do. bolection moulded do. ...	1 7	1 7	1 7	1 7
do. raised and fielded do. ...	—	2 6	2 6	2 6

Rebated and beaded meeting stile 4d. ft. run.
Dwarf doors add up to 50 per cent. according to size.

	Sectional area		
	n.e. 6 in.	6-12 in.	ex. 12 in.
Window and Door Linings and Frames:	s. d.	s. d.	s. d.
Softwood linings per inch of sectional area	5	4½	4
Add for cross-tongueing	—	1¼	1
Frames, including rebating and once moulded or equivalent of two run labours, per sectional inch	4½	3¾	3½

Transomes and cills plus 10 per cent. on frames.
Additional run labours plus 1½d. per ft. run.

	Per ft. run			
	Sectional area			
	1 in.	2 in.	4 in.	6 in.
Softwood Bearers, Fillets and Mouldings, etc.:	s. d.	s. d.	s. d.	s. d.
Wrot grounds, bearers, fillets, etc.	5	7¾	1 0	1 4½
Mouldings, picture rails, architraves, etc.	5½	8¼	1 0	1 5
Framed legs and bearers or similar	10	1 0	1 5	2 0
Glazing heads, mitred and bradded	6½	9½	—	—
Add for plugging	6½	6½	6½	6½
Add for brass cups and screws ...	2½	2½	2½	2½

	Thickness			
	¾ in.	1 in.	1¼ in.	1½ in.
Shelving (Softwood):	s. d.	s. d.	s. d.	s. d.
Slat shelving 2 in. wide spaced 1 in. between ... ... Ft. sup.	2 2	2 6	3 0	3 5
9 in. shelving... ... ... Ft. run	2 3	2 7	3 2	3 10
Shelving over 9 in. wide ... Ft. sup.	2 10	3 2	3 10	4 7

1 in. x 2 in. chamfered bearers in short lengths, plugged, each 2s. 6d.

	Ft. super	
	1 in. treads	1¼ in. treads
Staircases (Softwood):	s. d.	s. d.
Treads and risers with moulded nosings, glued, blocked and bracketed on carriages	6 10	7 9
Cross-tongued winders	9 0	10 3

	s. d.
Strings, framed ... ... Ft. run	5 3
Housings for treads and risers ... ... Each	3 4
1 in. x 1 in. sq. balusters framed each end on rail ... „	4 6
3½ x 3½ in. sq. framed newel ... ... „	5 8
Mahogany handrail, average 3 in. x 3 in. ... ... Ft. run	10 3
„ „ ramped ... ... „	28 6

FIXING ONLY IRONMONGERY

All to Softwood:	Each s. d.		Each s. d.
Barrel bolts	2 0	Rim locks	5 9
Flush bolts	7 0	Mortice locks	12 1
Sash fasteners	3 9	Overhead door springs...	16 0
Casement fasteners ...	2 6	Patent floor springs and oil	40 0
Cupboard locks	5 6		

FOUNDER AND SMITH

		s. d.
Fabricated steelwork of basis section including hoisting and fixing at various levels:		
Rolled steel joists	per cwt.	93 0
Compound girders	„	99 6
Stanchions	„	105 9
Compound stanchions	„	111 0
In roofwork—trusses and purlins	„	127 6
(Average prices, not for awkward work)		
Cleats, brackets, packing pieces, etc., in connections, including rivets and bolts	„	151 0
Wrot iron framed cat ladders	„	155 0
	to	175 0

PLUMBER

		Per ft. run		
		3 in.	4 in.	5 in.
Cast iron rainwater goods: (Under 5 cwt. lots):		s. d.	s. d.	s. d.
Half-round gutter jointed in red lead and bolted and fixed with iron brackets		3 5	4 1	4 11
Extra for stop ends	each	2 7	3 2	4 3
do. angles or outlets	„	6 3	6 7	7 9
O.G. gutter of ⅛ in. metal fixed as above		3 11	4 6	5 3
Extra for stop ends	each	2 11	3 6	4 8
do. angles or outlets	„	7 1	7 3	8 9
		2 in.	3 in.	4 in.
Rainwater pipe jointed in red lead and tow fixed to brickwork with pipe nails and distance pieces: ⅛ in. metal		4 7	5 2	6 9
Extra for shoes	each	5 6	7 6	10 0
do. bends	„	6 2	8 9	11 6
do. junctions	„	8 5	11 10	15 6
Cast iron soil and waste pipes: (Under 5 cwt. lots):				
		2 in.	3 in.	4 in.
Soil, waste or ventilating pipes with caulked joints fixed to brickwork with pipe nails and distances pieces: 13/64 in. metal		6 7	7 8	10 1
Extra for bends	each	14 7	17 3	21 1
do. junctions...	„	18 2	25 0	31 6
do. oval access door to any fitting	„	16 6	16 6	21 3
Extra cost for type 'E' holderbat fixing and cutting and pinning to brickwork	ft. run	1 8	1 9	1 9½

	Soakers	Flats	Gutters, valleys, etc.	Flash-ings	Stepped Flash-ings
External leadwork : (Over 1 ton) :	s. d.	s. d.	s. d.	s. d.	s. d.
Milled lead and labour in per cwt.	140 7	168 0	181 3	187 10	199 9

Labours, etc. : Double welt... ... ... ft. run	1	1
Copper nailing : Open ... ... ,,		5
Close ... ... ,,	1	2
Soldered seam ... ... ,,	7	0

	2 *in.* x 10 *lb.*	3 *in.* x 15 *lb.*	4 *in.* x 19 *lb.*
Lead pipes : (Over 1 ton) :	s. d.	s. d.	s. d.
Soil, waste and ventilating pipes, fixed to walls with plain lead tacks and brass screws ... ... per ft.	11 1	14 6	18 7
Extra for : Lengths under 4 ft. ... ,,	3 4	3 10	5 0
Bends ... ... No.	13 9	26 0	27 0
Wiped soldered joints ... ... ,,	23 8	31 7	35 7
,, branch joints ... ... ,,	27 4	41 0	45 3

	Per ft. run					
	½ *in.*	¾ *in.*	1 *in.*	1¼ *in.*	1½ *in.*	2 *in.*
Lead pipes including running joints :	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Main in trench ...	3 6	5 2	7 9	9 7	12 2	17 9
do. fixed with hooks	4 5	6 2	9 0	11 3	14 0	19 0
Service and do. ...	3 7	5 1	7 2	8 7	10 10	14 1
Waste and do. ...	2 11	4 2	6 1	7 2	8 10	11 4
Extra for lengths under 4 ft. ...	11	1 2	1 9	1 11	2 4	2 10
Soldered stop ends ... ... No.	2 9	3 4	4 1	5 0	5 8	7 4
do. joints to fittings ... ,,	7 0	10 0	12 0	14 3	17 10	21 8
do. branch joints... ... ,,	7 8	11 0	13 2	15 8	19 7	23 10
Brasswork :						
Union with red lead joint to iron and soldered joint to lead ... ... ,,	12 10	16 3	20 3	24 2	30 4	43 6
Stop-cock and soldered joints ... ,,	22 2	32 2	45 7	71 10	92 11	170 9
Bib-cock do. ,,	18 6	25 7	—	—	—	—
Ball-valve do.... ,,	18 0	31 10	45 3	73 5	92 1	—
Steel tubing :						
Galvanised tubing Class C laid in trench	2 7	2 9	3 2	4 6	6 0	7 1
do. Class B fixed to walls, etc. ...	2 10	3 4	3 8	4 10	6 8	7 8
Extra for bends No.	5 6	6 3	8 4	10 9	12 9	18 10
Tees ,,	6 3	7 5	9 0	11 11	14 0	20 6
Red lead joints ,,	4 0	4 3	4 8	5 2	6 0	6 8
Copper tubes and fittings : gauge	19	19	18	18	18	17
Tubes and fixing to walls	2 7	3 4	4 6	5 5	6 4	9 2
Extra for lengths under 4 ft. ...	7	9	11	1 0	1 3	1 6
Brass capillary type fittings :						
Couplings — copper to copper ...	3 8	4 4	6 9	8 9	11 2	15 3
Bends— do. ...	5 10	7 1	8 11	11 7	17 2	32 3
Tees— do. ...	8 7	9 11	14 2	19 2	26 3	36 4
Stop cocks	23 7	33 1	60 2	101 2	152 3	250 4
Tank connectors ...	4 9	5 4	8 1	10 2	14 3	18 4

PLASTERER

		s. d.
Expanded metal lathing ⅜ in. mesh 24 gauge ... ... (not including hangers for suspended work)	Yd. sup.	9 0
Lime Plastering : Render, float and set	,,	10 5
Sirapite Plastering: Render in Portland Cement, Lime and Sand and set in Sirapite	,,	8 1
Sirapite Plastering: Render and set in Sirapite plaster to manufacturer's instructions	,,	8 5
Paristone Plastering : do. do.	,,	8 8
Carlite Plastering : do. do.	,,	9 8
Portland Cement : Plain face trowelled smooth ...	,,	10 5
Keenes: Render in cement and lime and set in Keenes	Yd. sup.	11 0
Extra for dubbing out ¼ in. thick 1/11, ½ in. thick 3/11 ¾ in. Plasterboard and setting coat	,,	9 4
Narrow widths: Up to 3 in. wide add 300 per cent. Do. 3-6 in. do. 200 per cent. Do. 6-12 in., add 75 per cent.		
Labours : Arris 5½d. Fair edge 6½d. Quirk 10d.		
Plaster Moulded Cornices : 6 in. girth and under ... Over 6 in. girth, add 3½d. per in.	Ft. run	3 3
Tyrolean Rendering on and including Portland Cement and Sand backing	Yd. sup.	13 3
Wall Tiling : 6 in. x 6 in. white glazed ¼ in. thick ...	,,	46 0
Extra for rounded angle or birdsbeak	Ft. run	4½
do. rounded edge tile	,,	5½

GLAZIER

	Wood sashes with beads or putty
Clear sheet glass ordinary quality :	s. d.
18 oz.	1 5½
24 oz.	1 8¼
26 oz.	1 11
32 oz.	2 4
Obscured glass :	
⅛ in. Figured rolled White group 1	1 11
,, ,, ,, ,, group 2	2 3
,, ,, ,, Standard tints	2 7¼
⅛ in. Pinstripe, Hammerstripe, Reeded, Reedlyte and luminating group 3	2 4½
¼ in. Wired Cast	2 8¼
¼ in. Georgian Wired Cast	2 8½
¼ in. Polished Plate Glass, G.G. Quality :	
In plates not exceeding 2 ft. sup.	6 9
,, ,, ,, 5 ft. sup.	7 9
,, ,, ,, 45 ft. sup.	9 9
,, ,, ,, 100 ft. sup.	9 8
Extra on all above :	
For glazing with screw beads ft. sup. ... ... (Excepting polished plate over 12 ft. super on which no extra is charged)	6
For glazing with metal sashes with putty	1
Glazing bedded in washleather	Ft. run 9

PAINTER

		s. d.
Limewhiting : Prepare and two coats on brick ...	Yd. sup.	1 3
Whitening : Prepare and two coats on plaster ...	,,	1 6
Washable distemper: Prepare and two coats on plaster	,,	2 1
Emulsion paints : Prepare and two coats on plaster ...	,,	3 3

Painting with oil colours :	*Yd. super* 1 *coat*	2 *coats*	3 *coats*
	s. d.	s. d.	s. d.
Prepare and paint on plaster	2 4	4 5	6 7
On Steel :			
Plain surfaces	1 11	3 9	5 8
Roof trusses...	2 5	4 9	7 2
Metal casements divided into squares ...	3 6	7 0	10 6
do. divided into large squares ...	2 9	5 3	7 10
Opening edges ... ... Each	8	1 3	1 10
Small pipe ... ... Yd. run	6	1 0	1 5
Rainwater pipe ... ... ,,	1 0	1 11	2 9
Gutter ... ... ,,	1 4	2 6	3 8

	Knot prime and stop	*Add for each extra coat*
On Woodwork :	s. d.	s. d.
General surfaces ... ... Yd. sup.	2 10	2 4
On work not exceeding 3 in. girth Yd. run	4½	3½
Add to last for every additional 3 in. in girth	3¼	2¾
Sash squares on one side ... ... Doz.	5 9	4 9
Large ,, ,, ,, ... ,,	8 10	8 4
Opening edges ... ... No.	9	8

		s. d.
Oiling Hardwood : Two coats with linseed oil... ...	Yd. sup.	1 5
Creosote : Two coats on woodwork	,,	1 7
Polishing—New Work :		
Staining and wax polishing hardwood	Ft. sup.	1 1½
Staining, bodying in and full french polishing on hardwood	,,	2 7
Old Work previously polished :		
Preparing old work and repolishing	,,	1 2
Stripping, preparing and repolishing	,,	3 2
Papering :		
Preparing, sizing and hanging lining paper	per piece	11 0
do. do. Wallpaper, p.c. 10s.	,,	20 1

From November 1st 1961

THE BRITISH PLASTER BOARD (MANUFACTURING) LIMITED
THE GOTHAM COMPANY LIMITED
THE CARLISLE PLASTER & CEMENT COMPANY
THOMAS McGHIE & SONS LIMITED
THE LONG MEG PLASTER & MINERAL COMPANY LIMITED
MARBLAEGIS LIMITED

will be known as

British Plaster and Boards Limited

The combined manufacturing, marketing and technical service facilities of the constituent companies will be deployed more effectively, on a nationwide basis to meet the growing demand for their three main groups of gypsum products — already famous throughout the building industry.

'Thistle' plasters and **'Thistle'** plasterboards for traditional plastering.
'Paramount' plasterboards and dry partition for the most progressive methods of dry construction.
'Carlite' plasters for the most modern methods of lightweight plastering.

This is our new symbol

British Plaster and Boards Limited
Ferguson House, Marylebone Road, London, N.W.1. Hunter 4021-8

THE BUILDER CURRENT PRICES

THE information given on these pages has been specially compiled for *The Builder* and is copyright. It is the intention that the details given should indicate fair average prices of materials, not necessarily the highest or the lowest. The prices apply to large quantities of materials loaded at works, delivered at London Stations or at site in London Area as stated. Prices for smaller quantities ex merchant's warehouse will necessarily be higher so as to include the stocking and handling costs involved. It is recommended that the prices of materials should be confirmed by inquiry from suppliers and merchants.

AGGREGATES AND SAND

Delivered site in full lorry loads. Average of prices for Boroughs of Westminster, Paddington, Holborn and St. Pancras.

		£	s.	d.
Pit Ballast	per yd.	1	5	5
Pit Sand	"	1	3	8
Washed Sand	"	1	6	9
¼ in. Shingle	"	1	4	3
¼ in. Broken Brick	"	1	0	9
Pan Breeze	"	1	6	0
Fine or Coarse Foamed Slag Aggregate 2 yds. of fine and 2.6 yds. of coarse per ton.	per ton	3	8	0

CEMENT, etc.

Including non-returnable jute sacks or paper bags.

Best British Portland Cement. Standard Specification delivered Charing Cross area.

		£	s.	d.
8-ton loads and upwards, site	per ton	5	16	0
Below 8 tons down to 4 tons, site	"	6	8	0
Below 4 tons down to 2 tons, site	"	6	12	0
Below 2 tons down to 1 ton, site	"	6	14	0
Rapid-Hardening Cement in 8-ton loads and upwards to site	"	6	6	6
Below 8 tons down to 4 tons, site	"	6	18	6
Below 4 tons down to 2 tons, site	"	7	2	6
Below 2 tons down to 1 ton, site	"	7	4	0

Aquacrete Water Repellent Cement. 32s. 6d. per ton on ordinary cement prices.

Sulphate Resisting Cement. 32s. 6d. per ton on ordinary cement prices.

Red, Buff or Khaki Colocrete in 8-ton lots	"	8	16	0
Other colours according to colour. In 4-ton lots from 313s. 3d. to 783s. 3d. per ton.				
White Portland Cement	"	14	0	9
Under 1 ton	per cwt.		17	0
417 Cement (Ultra Rapid Hardening) in 8-ton lots and upwards	per ton	7	8	6

Super Cement (Waterproof), 32s. 6d. per ton above Portland Cement.

Cullamix Tyrolean Finish, £11 13s.3d. to £14 8s.3d. (1-ton loads and upwards).

Ciment Fondu and Lightning Brands High Aluminous cement, 6-ton lots and up	"	15	14	6
Stourbridge Fireclay, 6-ton loads at Railway Depot, London	"	6	19	0
Stourbridge Fireclay, 6-ton loads (London sites)	"	7	12	0
Moler Mortar Powder for Flue Bricks (London sites)	per cwt.	1	6	0

BRICKS

Full Loads		£	s.	d.
First Hard Stocks	per 1,000	16	19	6
Second Hard Stocks	"	14	18	6
Mild Stocks (Kiln Burnt)	"	11	5	0
Mild Stocks	"	11	0	0

All loaded free into lorry at the works. The question of haulage is still very difficult and prices must be obtained from job to job.

2½ in. Nominal Fletton Bricks to sites in W.C. district :				
Commons	"	6	10	0
Cellular Commons	"	6	10	0
Keyed do.	"	6	12	0
Rustics	"	8	12	0
Cellular Rustics	"	8	12	0
Single Bullnose Commons	"	8	14	6
Sandfaced	"	9	12	0
Tuscans	"	10	7	0
Saxons	"	10	15	0
Golden Buffs	"	11	2	0
Dapple Light Facings	"	11	9	6
Heather Facings	"	11	5	0
Best Blue Pressed Staffs (London sites)	"	34	0	6
do. Bullnose (London sites)	"	34	19	6
Blue Wire Cuts (London sites)	"	29	19	6
Midhurst Lime Bricks (London sites)	"	11	16	6
Uxbridge Whites (London sites)	"	12	3	6
Special Purpose Sandlime Bricks (London sites)	"	9	2	0
Best Stourbridge Fire Bricks :				
2½ in. (London sites)	"	33	6	9
3 in. (London sites)	"	40	0	0
2⅞ in. Moler Flue Bricks (London sites)	per 1,000	31	0	0
2½ in. Machine-made Sandfaced Red Facings (London sites)	"	18	19	0
2½ in. Machine-made Multi Red Facings (London sites)	"	19	4	0
2½ in. Hand-made Sandfaced Red Facings (London sites)	"	20	17	6
2½ in. Hand-made Sandfaced Multi-Colour Facings (London sites)	"	20	17	6
Hand-made Sandfaced Cherry Red Facings, Berkshire district (London sites)	"	21	5	0
Hand-made Sandfaced Multi-Colour Facings, Berkshire district (London sites)	"	21	5	0
Rubber Bricks for gauged arches (London sites)	"	52	5	0
2½ in. Surrey Clamp Burnt Multi Stock Facings (London sites)	"	16	15	0
2½ in. Surrey Kiln Burnt Multi Stock Facings (London sites)	"	18	7	6
Glazed Bricks (London sites), White, Ivory, Brown:				
Stretchers	"	64	0	0
Headers	"	63	0	0
Quoins, Bullnose and 4½ in. Flats	"	80	0	0
Double Stretchers	"	85	0	0
Double Headers	"	77	10	0
One side and two ends	"	87	0	0
Two sides and one end	"	89	10	0
Splays and Squints	"	83	0	0

Cream and Buff, £3 extra over White. Other colours, hard glaze, £8 10s. 0d. extra over White. All above prices plus 47½% for Best quality and plus 47½% less 10% for Second quality.

PARTITION SLABS, etc.

Delivered Central London Area. (W.C. District).

HOLLOW CLAY PARTITION BLOCKS (Keyed)

Minimum lorry loads

		£	s.	d.
*2½ in. 140 yds.	per yd. sup.		4	7

BUILDING BLOCKS (Keyed)

*3 in. (6 cavity) 110 yds.	"		5	9
*4 in. (6 cavity) 90 yds.	"		7	3
6 in. (8½ in. × 5½ in.) 1,250 blocks	per 1,000	28	9	0

* Half blocks at no extra charge.

CLINKER CONCRETE

2 in. 100 yds.	per yd. sup.		4	0
2½ in. 85 yds.	"		4	7
3 in. 75 yds.	"		5	8
4 in. 55 yds.	"		7	0

CRANHAM TERRA COTTA

2 in.	"		7	5
2½ in.	"		8	4
3 in. Load bearing quality	"		9	6
4 in. do. do	"		11	6

MOLER PARTITION BLOCKS

2 in. 150 yds.	"		12	9
2½ in. 120 yds.	"		13	9
3 in. 100 yds.	"		14	9
4 in. 90 yds.	"		17	0

LIGHTWEIGHT CONCRETE BUILDING AND PARTITION BLOCKS OF VARIOUS SOURCES OF MANUFACTURE

2 in. 100 yds.	per yd. sup.		5	4
2½ in. 80 yds.	"		6	5
3 in. 65 yds.	"		7	5
4 in. 50 yds.	"		9	4
4½ in. 44 yds.	"		10	2
6 in. 33 yds.	"		14	5

THERMALITE-YTONG PARTITION BLOCKS

2½ in. 144 yds.	"		7	0

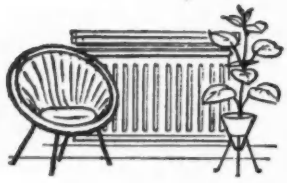
THERMALITE-YTONG LOAD-BEARING INSULATING BLOCKS

3 in. 120 yds.	per yd. sup.		8	5
4 in. 90 yds.	"		11	0
5 in. 72 yds.	"		13	9
6 in. 60 yds.	"		16	6
8½ in. 42 yds.	"	1	3	8

FLOOR BLOCKS AND FILLER TILES

Floor Blocks 12 in. × 12 in. delivered in full lorry-loads :				
3 in.	per 1,000	35	14	0
4 in.	"	38	9	0
5 in.	"	46	1	0
6 in.	"	52	12	0
7 in.	"	64	12	0
8 in.	"	75	9	0
9 in.	"	83	2	0
10 in.	"	92	0	0
Filler Tiles in multiples of 10 tiles per 1,000 multiples :				
12 in. × 3 in. × ¾ in.	"	43	13	0
12 in. × 4 in. × ¾ in.	"	75	7	0
10 in. × 5 in. × ¾ in.	"	75	7	0

Hot water never runs cold on her!



AND SHE HAS CENTRAL HEATING TOO!

Valor oil-fired boilers reheat water quicker than any other system. That's efficiency! Valor oil-fired boilers look after central heating too —more cheaply than any other oil-fired boiler. That's economy! And they are streamlined to look handsome in any kitchen.

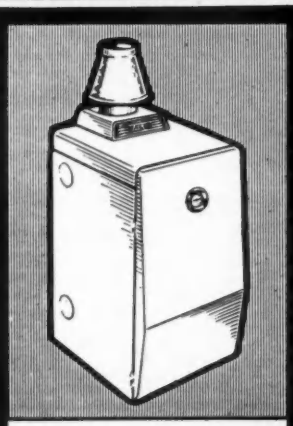
- ★ **No fuss! No smell! No smoke!**
- ★ **No attention needed. Looks after itself.**
- ★ **Perfect safety. Built-in oil control valve with anti-flooding safety device.**
- ★ **Thermostat maintains boiler temperature between 140°-180°F.**
- ★ **Maximum economy. Minimum servicing.**

Valor

OIL-FIRED BOILERS AND RADIATORS

VALOR GAS BOILERS TOO!

For further details please contact:
THE VALOR COMPANY LTD.
Bromford, Erdington, Birmingham 24
Tel: Erdington 6151



MODEL SA45
suitable for up to 220 sq. ft. of radiators and 40 gallons of hot water. Price £95.

MODEL SA35
suitable for up to 150 sq. ft. of radiators and 30 gallons of hot water. Price £80.

MODEL SA25
suitable for 50 sq. ft. of radiators and 30 gallons of hot water. Price £65.

STONEWARE DRAIN PIPES, etc.

Glazed Stoneware Standard List (November, 1956).

		4 in.	6 in.	9 in.
Pipes, 2 ft. lengths	per ft.	1/8	2/6	4/6
Bends	each	5/–	7/6	20/3
Junctions	„	8/4	12/6	27/–
Gullies with 4 in. outlets	„	12/6	13/9	22/6

The following are the percentages to be added to the Standard List (November, 1956) prices delivered London Area.
Delivered ex Merchants Wharf or Depot.

	Over 2 tons	Over 100 pieces Under 2 tons	Under 100 pieces Under 2 tons
Best Quality ...	NET	+22½%	+27½%
BSS Best Quality...	+10 % NET	+10 %+22½%	+10 %+27½%
Tested Quality ...	+37½% NET	+37½%+22½%	+37½%+27½%
BSS Tested Quality	+47½% NET	+47½%+22½%	+47½%+27½%

		£	s.	d.
3 in. Land Drain Pipes (in 12 in. lengths)	per 1,000	12	10	6
4 in. do. do.	„	16	16	0
6 in. do. do.	„	34	10	0
9 in. do. do.	„	64	19	0

DAMP COURSE

		£	s.	d.
Hessian base bitumen 7 lb. per yd. sup. in 24 ft. rolls cut to wall widths in lots of £6 value and over delivered London area	per yd. sup.		3	11
Asbestos base do. 7 lb. per yd. sup.	do. do. „		5	5
Lead lined bitumen do. 9½ lb. per yd. sup.	do. do. „		12	4½
18 in. × 9 in. British damp course slates	per 1,000	43	8	11
14 in. × 9 in. do. do.	„	32	8	2
9 in. × 9 in. do. do.	„	18	18	9
18 in. × 4½ in. do. do.	„	19	19	9
14 in. × 4½ in. do. do.	„	15	18	3
9 in. × 4½ in. do. do.	„	10	14	3

STONE

		£	s.	d.
Bath Stone				
Monks Park	per ft. cube		10	3
St. Aldhelm Box Ground	„		11	6
Delivered in railway trucks at South Lambeth B.R. Western Region.				
Doulting Stone Random Blocks. Delivered London area	„		10	10
Beer Stone. Delivered London area	„		10	6
Portland Stone—				
Brown Whitbed in random blocks, 20 ft. average delivered in railway trucks at Nine Elms, B.R. Southern Region	„		9	10
Yorkshire Stone—Blue Robin Hood Quality. Delivered to site London in 6-ton lots.				
9 in. × 3 in. Rubbed, weathered, throated and stolled cills	per ft. cube	4	5	10
12 in. × 6 in. do. do. do.	„	3	1	2
12 in. × 3 in. Plain coping, twice throated	„	2	7	6
12 in × 3 in. Weathered and twice throated coping	„	3	3	3
14 in. × 6 in. do. do. do.	„	2	17	0
4½ in. × 9 in. Plinth rubbed on top and face ...	„	2	11	0
3 in. sawn two sides Slabs, random sizes	per ft. sup.		9	1
Templates and Cover Stones, 3 in., 4 in. and 6 in. thick, edges coped for rendered brickwork ...	per ft. cube	1	11	3
do. do. fair one edge for fair faced brickwork	„	1	17	0
Hard York—				
12 in. × 2 in. Square Steps, rubbed on top and edge	per ft. run		11	0
14 in. × 3 in. Round-nosed Steps, rubbed on top and front	per ft. cube	2	18	3
12 in. × 6 in. Plain Steps, rubbed top and front ...	„	2	11	0
2 in. Rubbed and Jointed Paving, given sizes ...	per ft. sup.		10	3
2 in. Sawn Paving, edges squared, in random sizes	per yd. sup.	3	12	0

TILES AND PANTILES

Delivered London area by road in 6 tons or over per 1,000.

	£	s.	d.
Machine-made Pantiles and French pattern Tiles from Lincolnshire district	35	16	6
Hand-made Pantiles Berkshire district	64	10	0
Hand-made Double Roman Bridgwater district	78	2	9
Hand-made 10½ × 6½ tiles Berkshire district	18	0	0
Machine-made 10½ × 6½ Staffordshire district	17	0	0
Hand-made Hip and Valley tiles per doz.	1	13	0
Machine-made Hip and Valley tiles do.	1	12	0
Concrete tiles 10½ × 6½	8	10	0
do. Interlocking (49S)	19	16	6

NOTE.—Breakage in transit, purchasers' responsibility.

SLATES

First-quality Slates from Penrhyn or Portmadoc, carriage paid in full truck loads to London Rate station. Per 1,000 actual.

	£	s.	d.
24 × 12	160	4	0
22 × 12	126	15	0
22 × 11	114	15	0
20 × 12	107	5	0
20 × 10	105	0	0
18 × 10	71	5	0
18 × 9	62	14	0
16 × 10	54	15	0
16 × 8	42	18	0

NOTE.—Breakage in transit, purchasers' responsibility.

TIMBER

		Ex Wharf	per	£	s.	d.
Softwood						
Joinery quality		do.	standard	£115 to £140		
Carcassing quality		do.	„	£94 — £98		
1 in. Tongued and Grooved Flooring		do.	„	£112	0	0
Hardwood				£	s.	d.
Mahogany—African S.E.		do.	per ft. cube	1	17	6
do. Honduras S.E.		do.	„	3	5	0
Oak European S.E.		do.	„	2	10	0
do. Japanese S.E.		do.	„	3	0	0
do. English Logs sawn ...		do.	„	2	0	0
Teak 8 in. average S.E. ...		do.	„	3	17	6
Walnut African Logs sawn ...		do.	„	1	2	6
Plywood			per			
6 mm. (¼ in.) Birch Plywood B/BB			100 sq. ft.	4	3	6
6 mm. Israeli Gaboon do. B/BB exterior grade WBP (AX100)			„	4	5	3
18 mm. Birch Blockboard			„	9	7	0
¾ in. Douglas Fir Plywood 96 in. × 48 in. Exterior grade WPB (AX100) solid two sides			„	9	3	0

DOORS (in Lots I-II)

		£	s.	d.
Delivered London area.				
1½ in. 4 Horizontal Panel. Pattern 4 in. deal				
2 ft. 0 in. × 6 ft. 6 in.	each	1	16	0
2 ft. 3 in. × 6 ft. 6 in.	„	1	17	6
2 ft. 6 in. × 6 ft. 6 in.	„	1	18	6
2 ft. 9 in. × 6 ft. 6 in.	„	2	0	6
2 in. do. but top panel open. Pattern 4 × G in deal				
2 ft. 6 in. × 6 ft. 6 in.	„	2	9	0
2 ft. 9 in. × 6 ft. 6 in.	„	2	11	6
2 in. 2 Panel top panel open. Pattern 2 × G in deal				
2 ft. 6 in. × 6 ft. 6 in.	„	2	3	0
2 ft. 9 in. × 6 ft. 6 in.	„	2	5	0
1½ in. Plywood Faced Flush Doors to BS459, Part 2A				
2 ft. 0 in. × 6 ft. 0 in.	„	1	12	3
2 ft. 0 in. × 6 ft. 6 in.	„	1	12	3
2 ft. 3 in. × 6 ft. 6 in.	„	1	13	9
2 ft. 6 in. × 6 ft. 6 in.	„	1	15	3
2 ft. 9 in. × 6 ft. 6 in.	„	1	18	0
1½ in. Hardboard Faced Flush Doors				
2 ft. 0 in. × 6 ft. 0 in.	„	1	5	6
2 ft. 0 in. × 6 ft. 6 in.	„	1	6	0
2 ft. 3 in. × 6 ft. 6 in.	„	1	6	6
2 ft. 6 in. × 6 ft. 6 in.	„	1	8	6
2 ft. 9 in. × 6 ft. 6 in.	„	1	9	6

SUNDRIES

		£	s.	d.
Delivered London area.				
1 in. Wood Wool Slabs 6 ft. 0 in. × 2 ft. 0 in. in quantities of 1 ton (89 yds. to 1 ton)	per yd.		6	2
1½ in. do. (67 yds. to 1 ton)	„		8	0
2 in. do. (52 yds. to 1 ton)	„		9	9½
2½ in. do. (45 yds. to 1 ton)	„		11	3
3 in. do. (39 yds. to 1 ton)	„		12	7½
¼ in. imported or home produced insulation Board, per quantities over 5,000 sq. ft.	100 sq. ft.	2	2	6
¼ in. Hardboard do.	„	1	17	6
5/16 in. do. do.	„	2	4	6
2 in. Compressed Straw Slabs, roofing quality. 6 ft., 8 ft., 9 ft., 10 ft., and 12 ft. × 4 ft.				
50–100 yds.	per yd. sup.		11	4
101–250 yds.	„		10	10
251–750 yds.	„		10	1
Over 750 yds.	„		9	4
2 in. do. for partitions 4d. per yd. cheaper.				
3/16 in. Asbestos Flat Building Sheets...	„		4	3½
¼ in. do. do. do.	„		6	0
Roofing Felt 1-ply	„		1	9
do. 2-ply	„		2	2½
Best Scotch Glue in slabs	per ½ cwt.	5	3	9
do. pearl	„	5	3	9
Croid Glue	28 lb.	2	6	0
Impact Adhesive	per gall.	2	12	0
Cut Nails 3 in. (1-ton lots)	per ton	84	10	0
do. 4 in. and up (1-ton lots)	„	81	0	0
Wire Nails 3 in. (4-cwt. lots)	per cwt.	4	2	1
do. 4 in. and up (4-cwt. lots)	„	3	19	3

METALS

STEEL JOIST, ETC.

		£	s.	d.
Basis Joists—				
6 in. × 5 in., 8 in. × 5 in., 8 in. × 6 in., 10 in. × 6 in., 12 in. × 6 in., plain cut to lengths delivered London area	per ton	47	15	0
Extra for sizes				
3 in. × 1½ in. 4 in. × 1½ in....	„	3	10	0
3 in. × 3 in.	„	2	10	0
4 in. × 3 in.	„	2	5	0
10 in. × 4½ in.	„	1	10	0
5 in. × 2½ in. 5 in. × 3 in.	„	1	15	0
4½ in. × 1¾ in.	„	3	5	0
5 in. × 4½ in. 7 in. × 3½ in. 13 in. × 5 in....	„		15	0
6 in. × 3 in. 24 in. × 7½ in....	„	2	0	0
6 in. × 4½ in. 7 in. × 4 in. 8 in. × 4 in. } 9 in. × 4 in. 10 in. × 5 in. ... ... }	„	1	5	0
12 in. × 5 in. 22 in. × 7 in.	„	1	0	0

METALS—*continued*

		£	s.	d.
9 in. × 7 in. 10 in. × 8 in. 12 in. × 8 in. / 14 in. × 5½ in. 14 in. × 6 in. 14 in. × 8 in. / 15 in. × 5 in. 15 in. × 6 in. 16 in. × 8 in. / 16 in. × 8 in. 18 in. × 6 in. 18 in. × 7 in. / 18 in. × 8 in. 20 in. × 6½ in. 20 in. × 7½ in.	per ton		10	0
	„		10	0
Steel angles average price	„	48	15	0
Steel tees average price	„	49	15	0
Fabricated work delivered London—				
R.S. Joists cut and fitted...	„	67	19	0
Compound girders	„	72	14	3
Stanchions	„	78	9	9
Compound stanchions	„	83	4	3
In Roof Work—Trusses and Purlins	„	93	19	6
Average prices not for awkward work.				
Angle cleats and ⅛ in., ¼ in. and ⅜ in. bolts average price London area	per cwt.	5	10	0

Above prices joists etc. increased by 1·1%.

Ferro-Concrete Bars and Fabric

Mild Steel Ferro-Concrete Bars British manufacture to BSS 785 ex. Mills. 1 in. diameter and upwards delivered nearest London station ...	per ton	40	10	0
do. do. ex. London Stock do. delivered London site	„	49	10	0
Extras—				
¼ in. diam....	per ton extra	8	12	6
⅜ in. do.	„	6	12	6
½ in. do.	„	4	12	6
⅝ in. do.	„	3	2	6
¾ in. do.	„	1	10	0
⅞ in. and 1 in. diam.	„		15	0

Above prices mild steel bars increased by 1·1%.

Steel wire mesh reinforcing fabric to BSS 1221A.				
Ref. No. 106 ... ... 7.88 lbs.	per sq. yd.		5	2½
„ „ 109 ... ... 4.71 „	„		3	0½
„ „ 113 ... ... 1.83 „	„		1	8½
„ „ 122 ... ... 7.32 „	„		4	10½
„ „ 125 ... ... 4.32 „	„		2	10½

Mild Steel Tubes

Tubes to BSS 1387. Fittings BSS 1740.

Basic List Prices

		¼ in.	⅜ in.	½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
Tubes	per ft.	9½	10	1/–	1/2½	1/9	2/3	2/8	3/9
Bends	each	1/7	1/9	2/–	2/6	3/8	5/5	6/2	10/7
Elbows, square	„	1/8	1/10	2/2	2/6	3/–	4/4	5/2	8/6
do. round	„	1/10	2/–	2/4	2/10	3/4	4/8	5/8	9/4
Tees	„	2/–	2/2	2/6	3/2	3/8	5/–	6/2	10/2
Crosses... ...	„	4/4	4/8	5/6	6/6	8/2	11/–	13/2	21/–
Sockets, Plain	„	6	6	8	10	1/–	1/4	1/9	2/6
do. Diminished	„	8	10	1/–	1/2	1/6	2/–	2/8	4/–
Backnuts ...	„	4	4	6	7	10	1/–	1/4	2/2

Malleable Fittings

		¼ in.	⅜ in.	½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
Elbows, round	each	8½	8½	9½	1/2½	1/8½	2/7½	3/6	5/–
Tees	„	9½	9½	1/–	1/4½	2/–	2/9½	4/–	5/6
Crosses... ...	„	1/2½	1/2½	1/4½	2/–	2/9½	3/7½	5/2½	7/2½
Sockets... ...	„	5½	5½	7	9½	1/–	1/7½	2/2½	3/1½
Backnuts ...	„	3	3	3½	4½	5½	7½	10½	1/5½

Discounts from List prices as follows :—

Galvanised Tube—

	Under 1 ton	Over 1 ton	W.I. Fittings	Malleable Fittings
Light	−37 %	−38½%	Light −24½%	Malleable List
Medium	−33 %	−34½%	Heavy −20½%	−14%+40%
Heavy	−25½%	−27 %		

Black—

Light	−47 %	−48½%	Light −30½%	Malleable List
Medium	−43 %	−44½%	Heavy −26½%	−14%
Heavy	−35½%	−37 %		

C.I. Half-Round Gutters

Delivered London per yd. in 6 ft. lengths.

	Gutters	Nozzles	Stop Ends
3 in.	4/4½	3/10	1/1
3½ in.	4/9	4/2	1/1
4 in.	6/1½	4/9	1/8
4½ in.	6/9	5/4	2/–
5 in.	7/6	5/9	2/4

C.I.O.G. Gutters

Per yd. in 6 ft. lengths :	Gutters	Nozzles	Stop Ends
3 in.	5/7½	5/1	1/4
3½ in.	6/3½	5/1	1/8
4 in.	6/11½	5/4	2/–
4½ in.	7/6	6/1	2/4
5 in.	8/2½	7/–	2/8

C.I. Rain-Water Pipes

	Pipes	Bends	Branches
2 in.	9/4	4/9	6/10
2½ in.	9/4	5/4	9/2
3 in.	10/6	6/8	9/11
3½ in.	11/10	7/10	11/11
4 in.	13/9½	9/6	14/2

L.C.C. Coated Soil Pipes

2 in.	10/7	8/2	9/11
2½ in.	11/2	9/1	12/4
3 in.	12/6½	9/11	14/8
3½ in.	14/–½	12/4	17/1
4 in.	15/11½	13/10	20/3

Above prices for gutters, rain-water and soil pipes for under 5-cwt. lots only. Lots over 5 cwt. see List No. 3300, dated February 1, 1955, plus 32½% and tonnage allowance. 4-ton lots 5%. 2-ton lots 2½%.

L.C.C. Coated Drain Pipes

		£	s.	d.
4 in. diameter in 9 ft. lengths	per yd. run	1	11	1
6 in. do. do.	„	2	5	6
4 in. diameter bends	each	1	0	6
6 in. do. do.	„	2	14	9
4 in. diameter branches	„	1	16	6
6 in. do. do.	„	4	7	6

Above prices for any quantity but under 5 cwt. carriage extra.

Pitch Fibre Drain Pipes

2 in. diameter in 5 ft., 5 ft. 6 in. or 8 ft. lengths including couplings	per ft. run		1	6½
3 in. do.	„		1	10½
4 in. do.	„		2	6
5 in. do.	„		4	1½
6 in. do.	„		5	0½
4 in. diameter short radius ¼ bends	each		17	9
4 in. do. do. ⅛ bends	„		12	11
2 in. diameter 6 ft. radius bends (5 ft. lengths)	„		17	0
3 in. do. do. do.	„		19	8
4 in. do. do. do.	„	1	7	4
5 in. do. do. do.	„	2	4	0
6 in. do. do. do.	„	2	14	6

Above prices for loads of £60 and over.
Loads £25 to £59 19s. 11d. Plus 10%
Loads under £25 ... Plus 15%

Asbestos Rain-Water Pipes and Fittings

All less 17½% discount.	2 in.	2½ in.	3 in.	4 in.
Pipes, 6 ft. lengths ... ... per yd.	4/7	4/10½	5/11	7/10
Shoes ... ... each	3/–	3/3	3/10	5/2
Single Branches ... ... „	4/8	5/6	6/7	9/2
Bends, squares or obtuse ... „	3/3	3/7	4/8	6/7
Swan Necks, 4½ in. proj.... „	3/7	4/8	5/2	7/3
do. 6 in. do. ... „	3/10	5/2	5/10	7/10

Asbestos O.G. Gutters and Fittings

	4 in.	4½ in.	5 in.	6 in.
Gutters, 6 ft. lengths ... per yd.	4/4	4/9½	5/9	6/10½
Drop ends ... ... each	3/6	4/–	4/9	5/5
Stop ends ... ... „	1/1	1/2	1/3	1/5
Angles ... ... „	3/7	4/1	5/–	5/10
Nozzles ... ... „	3/6	4/–	4/9	5/–
Union Clips ... ... „	1/9	2/1	2/6	2/11

Asbestos Half-Round Gutters and Fittings

	per	3 in.	4 in.	4½ in.	5 in.	6 in.
Gutters, 6 ft. lengths	yd.	3/0½	3/7½	3/8½	4/4½	6/1
Drop ends	each	2/6	3/–	3/3	3/7	5/2
Stop ends	„	1/–	1/1	1/2	1/3	1/5
Angles	„	2/10	3/3	3/7	3/10	5/2
Nozzles	„	2/6	3/–	3/3	3/7	5/2
Union Clips	„	1/3	1/4	1/5	1/7	2/5

	Per ton basis in London £ s. d.
Iron—Staffordshire Crown Merchant Quality	52 17 6
Mild Steel Bars	47 18 0
Mild Steel Hoops	49 10 0

	Ex Merchant's Stock per ton Two-ton lots £ s. d.
Soft Sheets C.R. and C.A.—	
20 gauge	63 0 0
24 gauge	65 10 6
26 gauge	68 11 0
Galvanised Corrugated Sheets, 6-ft. to 9-ft.—	
20 gauge	70 18 0
24 gauge	74 9 0
26 gauge	79 15 0
Galvanised Flat Sheets C.R. and C.A.—	
20 gauge	72 8 6
24 gauge	75 19 0
26 gauge	81 5 0

ALUMINIUM AND ALUMINIUM ALLOYS

(Base Prices)		£	s.	d.
Sheet BS 1740 S1C 18 SWG (36 in. wide)... ...	per lb.		3	0½
Sheet BS 1470 NS3 Utility 18 SWG (36 in. wide)	„		2	11½
Coiled strip BS 1470 S1C 18 SWG (24 in. wide)	„		2	11½
Coiled strip BS 1470 NS3 Utility 18 SWG (24 in. wide)...	„		2	11
Coiled strip high purity, 22 SWG (12 in. wide)	„		3	2
Corrugated sheet BS 1470 NS3 Circular Profile 8 ft. × 32 in. × 20 SWG	per sheet	1	14	1
Corrugated sheet BS 1470 NS3 Industrial Profile 8 ft. × 31½ in. × 20 SWG	„	1	19	10
Corrugated sheet BS 1470 NS3 Mansard Profile 8 ft. × 31½ in. × 20 SWG	„	1	13	1
Extruded section BS 1476 E1C simple moulding	per lb.		2	10½
Extruded section BS 1476 E1C 1 in. diam. round	„		2	8
Extruded section BS 1476 HE19WP simple angle	„		3	2
Extruded section BS 1476 HE19WP 1 in. diam. round	„		3	1
Tubing BS 1471 T1C 1½ in. O/D × 20 SWG ...	„		4	8
Tubing BS 1471 HT19WP 1½ in. O/D × 20 SWG	„		6	3

PLUMBERS' BRASS WORK, etc.

Delivered in London area.

All per dozen B.S.S.	½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
Screwdown bib cocks Crutch head for iron...	87/–	128/–	—	—	—	—
Toilet bib cocks for iron ...	109/–	158/5	—	—	—	—

PLUMBERS' BRASS WORK, etc.—*continued*

All per dozen	½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
Screwdownstopcocksforiron	66/-	95/9	188/-	363/-	522/6	917/6
do. with two unions for lead	89/-	132/-	234/4	472/-	623/6	1,389/6
Double nut boiler screws ...	18/8	26/5	47/6	48/6	67/-	93/6
Heavy Croydon ball valves	77/-	193/6	312/5	568/8	734/10	—
Plumbers' union brass lead to iron	19/6	23/6	38/6	52/10	70/6	165/-
	1½ in.	1¾ in.	2 in.	3 in.	3½ in.	4 in.
Caps and Screws	33/-	40/8	59/6	92/5	118/10	155/3
Brass Sleeves	—	31/11	31/11	56/2	74/10	91/5
	1¼×6 lb.	1½×6 lb.	2×7 lb.	3×7 lb.		
Lead P. trap with brass cleaning screws	68/6	85/6	137/-	233/9		
Lead S. trap do. do.	82/9	102/9	168/3	302/3		

Solder :		s.	d.
Plumbers' ...	1 cwt. lots 320/-	14 lb. lots per lb.	3	7
Tinmen's	„ „ 404/-	„ „ „	4	5
Blow pipe ...	„ „ 407/-	„ „ „	4	6

Copper Tubes and Sheets

Copper tubes BSS 659/1944 on the basic price of 27⅝d. per lb. plus gauge and manufacturing extras as follows. Minimum quantities, 10 cwt.

	Extra d.		d.		d.
¼ in. × 19 gauge	16½	Total per lb.	43⅝	Approx. per ft.	11⅜
⅜ in. × 19 „	14⅜	„ „	42	„ „	16½
1 in. × 18 „	12⅞	„ „	40½	„ „	25
1¼ in. × 18 „	12½	„ „	39⅞	„ „	30½
1½ in. × 18 „	12½	„ „	39⅞	„ „	36½
2 in. × 17 „	13⅞	„ „	41½	„ „	58

Small Quantity extras :

10 cwts. to 5 cwts.	plus ½d. per lb.
5 cwts. to 2 cwts.	„ 1d. „
2 cwts. to 1 cwt.	„ 2d. „

	£	s.	d.
Rolled Copper sheets up to 48 in. wide, basic price plus gauge and manufacturing extras	267	10	0

Zinc

		£	s.	d.
Sheet Zinc, 10 gauge (25 SWG), 5 cwt. lots upwards	per cwt.	8	6	6
„ „ 12 gauge (23 SWG), „ „ „ „	„	8	4	0
„ „ 14 gauge (21 SWG), „ „ „ „	„	8	2	9

Brass Tube

		s.	d.
Brass tubes, basic price, plus gauge and manufacturing extras	per lb.	1	10

LEAD SHEET AND PIPES

Basis selling price to one address in London or Home Counties :

		£	s	d.
Lead Sheet, English, 3½ lb. substance and upwards	per ton	101	0	0
„ Water Pipe, in coils	„	103	5	0
Lead Soil Pipe, 10 ft. or over 2 in. to 4 in. in dia.	„	104	15	0
„ „ „ over 4 in. dia.	„	105	15	0
„ Gas or Untinned Compo pipe...	„	104	15	0

5 cwt. lots and over less 6d. per cwt. off basic prices.

Extras over Basis for quantities under 5 cwt. :

		£	s.	d.
3 cwt. and under 5 cwt.	per cwt.		4	0
1 cwt. do. 3 cwt.	„		6	0

Smaller quantities than 1 cwt. priced specially.

Supplying sheet lead and lead pipes to less than basis weights and cutting to sizes less than basis charged extra according to current trade schedule.

Allowance for Old Lead, collected, £53 0s. 0d. per ton weighed at buyer's works.

PLASTER, etc.

		£	s.	d.
Coarse Pink in 1-ton loads and over delivered on site	per ton	8	15	0
do. White do. do. do.	„	9	4	9
Sirapite Coarse BSS 1191 Class C do.	„	9	6	9
do. Fine do. do. do.	„	9	14	9
do. Browning BSS 1191 Class B do.	„	9	6	9
do. Board Finish do. do.	„	9	6	9
Blue Lias Lime, in 6-ton loads	„	6	17	6
Hydrated Lime (Grey) in 6-ton loads	„	6	2	0
do. (White) do.	„	6	12	0
Lump Lime (Grey) do.	„	5	19	0
do. (White) do.	„	6	6	6
White Keen's or Parian Cement, in 1-ton loads ...	„	12	13	0
Pink Keen's or Parian Cement, in 1-ton loads ...	„	12	7	9
Granite Chips, in 6-ton loads	„	2	6	9
Hair	per cwt.	4	17	6
Gypsum Plaster Lath or Base Board, ½ in. thick, 600 yds. and over in one delivery. Delivered site	per yd.		2	2½
1,200 yds.	„		2	1½
do. Insulating do. ½ in. thick, 600 yds. and over in one delivery. Delivered site	„		2	8
1,200 yds.	„		2	7
Gypsum Plaster Wall Boards, 3 and 4 ft. wide 6 to 12 ft., ½ in. thick, 600 yds. and over in one delivery. Delivered site	„		2	5½
1,200 yds.	„		2	4½
do. Insulating do. ½ in. thick, 600 yds. and over in one delivery. Delivered site	„		2	11
1,200 yds.	„		2	10

PAINTS AND DISTEMPER

Delivered London area.		£	s.	d.
Ceiling Distemper	per cwt.	1	7	6
Washable Distemper	„	5	18	0
Gloss Paint	per gal.	2	18	0
Super Snowcem cement paint (in 1 cwt. drums) ...	per cwt.	5	0	0

Lead Products and Oils

		£	s.	d.
Ground White Lead, in 1 cwt. kegs	per cwt.	8	7	6
Genuine White Lead Paint, 1-19 gal. lots in 1 gal. tins	per gal.	3	6	6
Genuine Red Lead, Dry, (1 cwt. lots)	per cwt.	6	17	0
Genuine Linseed Oil Putty, 1 cwt. keg	„	2	13	6
Size XD quality 28 lb.	per tin		9	0
Raw Linseed Oil (5 gal.) drums extra	per gal.		16	9
Boiled Linseed Oil (5 gal.) do.	„		17	8

Sundries

Turpentine substitute (5 gal.) drums extra ...	„		5	4½
do. do. (40 gal.) do.	„		4	8½
Solignum, Brown (5 gal. cans) Exterior	„		10	0
Creosote (40 gal. barrels)	„		2	3
Paste Powder (1 lb. packets)	per lb.		2	4
White Lining Paper	per piece		1	4

VARNISHES, etc.

Delivered London area.		£	s,	d.
Oak Varnish, Outside or Inside	per gal.	2	0	0
Oak, Pale Copal do. do.	„	2	0	0
Hard Drying Oak for Inside	„	2	5	0
Crystal Paper Varnish do.	„	2	8	0
Eggshell Flat Varnish do.	„	2	2	0
Finest Carriage Varnish	„	2	7	0
Front Door Varnish	„	2	4	0
Japan Gold Size	„	1	12	0
Black Japan	„	1	16	0
Brunswick Black	„	1	12	0
Berlin Black	„	1	10	0
Terebene	„	1	12	0
Knotting (1 gal. bottles free)	„	1	15	0
French and Brush Polish (do.)...	„	1	15	0

GLASS

Delivered London area.		s.	d.
18 oz. Sheet Glass Ordinary Glazing Quality—Cut Sizes...	per ft. sup.		10
24 oz. do. do. do. do.	„	1	0½
26 oz. do. do. do. do.	„	1	3
32 oz. do. do. do. do.	„	1	7½
⅛ in. Rolled Plate...	„	1	3½
3/16 in. Rolled and Rough Cast	„	1	6½
¼ in. do. do.	„	1	7½
⅛ in. Figured Rolled and Cathedral, Standard patterns—			
White Group 1	„	1	3½
do. Group 2	„	1	9½
do. Standard Tints	„	2	1½
do. Special Tints	„	7	3
⅛ in. Pinstripe, Hammerstripe, Reeded, Reedlyte and Luminating Group 3	„	1	8½
¼ in. Wired Cast up to 50 in.	„	1	10½
¼ in. do. do. 50 in. to 72 in.	„	2	2½
¼ in. Georgian Wired Cast	„	1	11

Hollow Glass Blocks—			
P.B.2 Cross reeded 5½×5½×3⅞ in.	each	3	9
P.B.3 Broad reeded 7½×7½×3⅞ in.	„	5	9
P.B.32 Cross reeded 7½×7½×3⅞ in.	„	5	9
P.B.4 Prismatic 7½×7½×3⅞ in.	„	6	6
P.B.5 Flemish 7½×7½×3⅞ in.	„	5	9
P.B.6 Boomerang 7½×7½×3⅞ in.	„	6	6
Half Size Blocks—			
P.B.32 Cross reeded 7½×3¾×3⅞ in.	„	4	10
Radiused Corner Blocks to match up with—			
P.B.2 Cross reeded	„	8	1
P.B.3 Broad reeded	„	9	8
P.B.32 Cross reeded	„	9	8
P.B.2, P.B.3, P.B.32 are also supplied in Light Diffusing Blocks at same price.			
¼ in. Polished Plate Glass, G.G. quality—			
In plates not exceeding 2 ft. sup.	per ft. sup.	4	7
„ „ „ 5 ft. sup.	„	5	7
„ „ „ 45 ft. sup.	„	7	6
„ „ „ 100 ft. sup.	„	7	6
¼ in. Polished Plate, extra sizes, i.e., plates exceeding 100 ft. sup. or 160 in. one way or 96 in. both ways. G.G. quality—Not exceeding 135 ft. sup. or 240 in. one way or 130 in. both ways ...	„	11	4
Not exceeding 180 ft. sup. or do.	„	15	0

Plates exceeding 180 ft. sup. prices on application.

Substances other than ¼ in. Polished Plate at Special Prices.

Quantity Tariff—Sheet and Sundry Glass.

The following prices apply to minimum quantities of one size and one pattern delivered by the manufacturer to one site at one time.

Description of Glass—	Minimum quantity	per ft. sup. s.	d.
18 oz. sheet O.Q.	3,000		7½
24 oz. „ „	2,000		9½
26 oz. „ „	2,000		11½
32 oz. „ „	2,000	1	3½
⅛ in. Rolled Plate...	1,000		10½
⅛ in. Figured Rolled and Cathedral Standard Patterns, White Group 1	1,000		10½
do. Group 2	1,000	1	2½
⅛ in. Pinstripe, Hammerstripe, Reeded, Luminating and Spotlyte Group 3	1,000	1	2½
3/16 in. Rolled Plate or Rough Cast	2,000	1	2
¼ in. do. do.	2,000	1	2½
¼ in. Wired Cast, Hexagonal up to 50 in. ...	2,000	1	5
¼ in. do. do. do 50 in. to 72 in. ...	2,000	1	9
¼ in. Georgian Wired Cast	2,000	1	5½

THE BUILDER RATES OF WAGES

AS FROM OCTOBER 2nd, 1961. (Every endeavour is made to ensure accuracy but we cannot be responsible for errors.)

1. Craftsmen and Labourers.

Region	Craftsmen	Labourers
	s. d.	s. d.
England & Wales (Grade A) ...	5 6	4 10½
London	5 7½	5 0
Liverpool and District ...	5 7½	5 0
Scotland... ...	5 6	4 10½

2. Apprentices.

Age	Per cent of Craft Rate	London and Liverpool Dist.	England, Wales (Grade A)
		s. d.	s. d.
15	25	1 5	1 4½
16	33½	1 10½	1 10
17	50	2 9½	2 9
18	62½	3 6½	3 5½
19	75	4 2½	4 1½
20	87½	4 11½	4 9½

3. Young Male Labourers.

Age	Per cent of Craft Rate	London and Liverpool Dist.	England, Wales and Scotland
		s. d.	s. d.
15	33½	1 8	1 7½
16	45	2 3	2 2½
17	66½	3 4	3 3
18	100	5 0	4 10½

NORTHERN IRELAND is not included; rates fluctuate so much from district to district that reference should be made to local offices.
WATCHMEN.—The rates per shift for watchmen engaged on building sites is 30s. 6d. in London and Liverpool District, and 29s. 3d. in the provinces.
FEMALE OPERATIVES.—In all districts throughout the country except in Scotland the rate of wages for women, aged 19 and over, engaged in craft processes is 4s. 7½d. per hour. Women engaged on work other than craft processes, 4s. 3½d. per hour. In Scotland the rate for the woman craftsman is 4s. 10½d. after a probationary period, and the woman labourer, 4s. 4½d.

New Companies

THE FOLLOWING NEW COMPANIES, registered in England, have been announced by Jordan and Sons, Ltd., company registration agents.

D. N. SPENCE & SON LTD.—Regd. Oct. 13. Bldrs. and contrs., etc. Nom. cap.: £2,000. Dir.: Desmond N. Spencer, 6 Holly-rd., Kettering.

T. A. WILLIAMS (BUILDERS) LTD.—Regd. Oct. 13. 63 Alpha-rd., Birchington, Kent. Secy.: T. A. Williams. Nom. cap.: £100.

NICHOLSONS (ILFORD) LTD.—Regd. Oct. 13. 38 Hamilton-rd., Ilford, Essex. Secy.: H. I. V. Peters. Bldrs., etc. Nom. cap.: £1,000.

N. E. COX (BOLDMERE) LTD.—Regd. Oct. 13. Lancaster-hse., 67 Newhall-st., Birmingham, 3. Secy.: Ethel Cox. Bldrs., painters, decorators and property repairers at 3 Gate-la., Boldmere, Sutton Coldfield, etc. Nom. cap.: £7,500.

E. COOK (BUILDERS) LTD.—Regd. Oct. 16. Brick Kiln-la., Rickling, Saffron Walden, Essex. Secy.: Nellie V. Cook. Bldr. and decorator. Nom. cap.: £1,000.

ROADS AND PIPELINES LTD.—Regd. Oct. 17. Civil engrs. & bldg. contractors, etc. Nom. cap.: £20,000. Permt. dir.: Donald Lees, Ness Strange, Great Ness, nr. Shrewsbury, Salop.

H. & W. BUILDING CO. (HEANOR) LTD.—Regd. Oct. 17. 17 Market Head Belper, Derbys. Nom. cap.: £100. Secy.: T. E. Westby.

BUILDING AND CIVIL ENGINEERING GUARANTEE COMPANY LTD.—Regd. Oct. 17. 52 Mark-la., EC3. Secy.: S. T. East. Nom. cap.: £10,000. Dir.: Albert V. G. East, 'Henleys,' Dartford-rd., Bexley, Kent.

J. B. SHEVILL & COMPANY LTD.—Regd. Oct. 18. 2 & Beverley View, Leeds 11. Secy.: Florence E. Shevill. Bldrs. & contractors, storefitters & refractory workers, etc. Nom. cap.: £1,000.

D. A. COULSON & SON (BUILDERS) LTD.—Regd. Oct. 18. 12 Andrew-sq., Farley, Nr. Leeds. Secy.: Shirley Hart. Nom. cap.: £1,000.

EICHLER HOMES LTD.—Regd. Oct. 19. Cumberland-hse., Kensington-ct., W8. Bldrs., etc. Nom. cap.: £1,000. Sub.: Laurie P. Marsh, Cumberland-hse., Kensington-ct., W8.

Industrial Building

Figures for Third Quarter, 1961

PROVISIONAL figures issued by the Board of Trade of building schemes for which industrial development certificates were issued during the third quarter of 1961 are as follows:

	No. of schemes	Total area (mn. sq. ft.)
STANDARD REGIONS		
1961—3rd quarter :		
Northern	38	0·7
East & West Ridings	61	1·1
North Midland ...	45	0·8
Eastern	54	1·2
London & S. Eastern	115	2·5
Southern	40	0·7
South Western ...	34	0·6
Wales	23	0·6
Midland	78	1·2
North Western ...	75	1·3
Scotland	33	0·8
GREAT BRITAIN		
1961—3rd quarter ...	596	11·6
2nd quarter ...	639	13·4
1960—3rd quarter ...	764	21·9
2nd quarter ...	1,024	23·8

The figures relate to all building schemes for manufacturing and non-manufacturing industry approved under the Local Employment Act, 1960.

Loans to Local Authorities

Ministry's Figures for Last Quarter

A LIST of the loans sanctioned by the Minister of Housing and Local Government to local authorities in England and Wales on behalf of his own department in the last quarter is given below:

LOANS SANCTIONED DURING THE QUARTER ENDED SEPTEMBER 30, 1961

	£	£
Housing (land, dwellings, roads, sewers, etc.) ...	67,235,698	
Advances under Hsg. and SDA Acts	31,955,339	
Grants under Hsg. Acts ...	4,240,017	
		103,431,054
Town and country planning	3,169,302	3,169,302
Sewerage and sewage disposal	12,584,660	
Water supplies	6,603,526	
		19,188,186
Burial grounds and cemeteries	151,014	
Coast protection	164,589	
Crematoria	88,320	
General depots	596,610	
General markets	85,731	
Land for the benefit, etc., of the district	1,479,491	
Physical training and recreation	625,958	
Private street works	1,002,921	
Privy conversion	17,430	
Public baths and washhouses	990,100	
Public conveniences	177,778	
Public libraries and museums	1,001,912	
Public walks and pleasure grounds...	850,159	
Refuse collection and disposal	432,031	
Street cleansing...	28,384	
Town halls and offices ...	1,958,810	
Miscellaneous	713,469	
		10,364,707
		£136,153,249

Sewage Treatment

Developments in Biological Purification

A PAPER describing some important development work which has been proceeding in recent years in improving the efficiency of the activated sludge process of sewage treatment was presented at the Institution of Civil Engineers in London on October 12.

The author, MR. JAMES MCNICHOLAS (general manager, Manchester Corporation Rivers Department) brought available information up-to-date and gave an account of much of his original work.

Mr. McNicholas described the 'Inka' system of air diffusion and summarised the experimental work on mechanical aeration systems, carried out principally at Manchester sewage works. Among the nine tables, he provided one showing results from Inka and Kessener units in use at Hamburg.

'One of the most expensive sections of waste-water treatment,' said Mr. McNicholas, 'is that in which biological agencies, usually either percolating filters or an activated sludge system, are employed for the removal and oxidation of impurities contained in true and in colloidal solution. One of the principal reasons for the high cost of such treatment is that means for speeding up the rate at which organisms affect oxidation are as yet not very well understood.' The developments which he mentioned, however, appear to hold out distinct possibilities of reducing the cost of biological purification of sewage.

TECHNICAL REVIEW

This Review of plant, equipment and materials—in most cases new or with new features—is intended to give brief details only of the products mentioned. Notices are based on data supplied by the manufacturers. Additional information and prices can be obtained either direct or by using the prepaid Readers' Service form which appears on page 148 of this issue. The form can be used for more than one inquiry.

1. Decorative Panels

Translucent glass-fibre reinforced doors, windows and screen PANELS are now being manufactured which could give additional scope in modern design. Bonded into a wood frame the new panels consist of two glass-fibre skins between which are sandwiched 'cells' of other materials to form repetitive or random patterns. There are four standard patterns and twelve colours. Because of the cellular structure the panels insulate against cold and heat and diffuse light in saturated tones of colour without glare. For outdoor applications under severe conditions, cores and skin surfaces are treated with a special protective finish for weather resistance and colour retention.
James Halstead Ltd.,
Chadderton, Lancs.

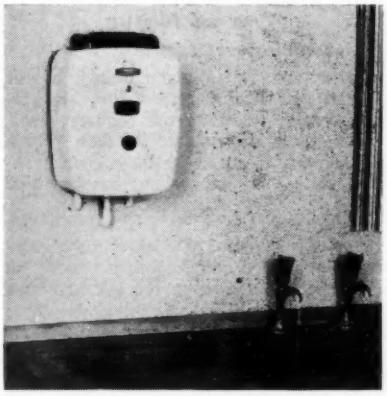
2. Heating

A method of SPACE HEATING, recently introduced into this country from Scandinavia, is designed specifically for flexibility and for the minimum of structural alteration when installing. It consists of a range of eight different sizes of wall-mounting panel and skirting board electric convector heaters, varying in loading from 600-1,500 watts and each with individual controls. With this system any type of installation can be catered for, from a single heater in a small kitchen to a number of units in an office block.

Among the features of the range is a new slim-line styling which allows the minimum protrusion from wall or skirting. Fixing is by simple screw-in brackets, allowing easy installation without spoiling decorations. Air-ducts along top and bottom draw cold air from the lower edge and distribute warmth evenly from the top along the whole length of the heater. The wall panels are so designed that heat is deflected away from the wall at an angle of 45°, a good feature which saves subsequent marking of the wall. Because of their low thermal inertia the heaters respond very quickly to control.
Denham & Morley Ltd.,
173-175 Cleveland-st., London, W1.

3. Water Heaters

A multipoint version of a thermostatically controlled instantaneous GAS WATER HEATER is now being produced. This means that unlimited hot water at a constant flow and a constant temperature can be brought to outlet taps under remote control from the heater. The development has been achieved by incorporating a water flow operated automatic gas valve in place of the existing water tap. The automatic valve utilises a similar poppet type gas tap but instead of this being actuated by the water tap cam it is operated on the well-tried venturi and diaphragm principle. By this means the gas flow to the burner is dependent on there being a water flow through the heater, thereby making control by the draw-off tap possible. The action of the automatic valve maintains the gas flow under the control of the thermostat down to quite low water rates.



The 'Apollo' gas water heater

The unit will usually be sited near the kitchen sink and its hot water outlet connected to the service pipes to suit various layouts as required. It will serve the sink and the washbasin in an adjoining room or the washbasin in the bathroom or bedroom of the floor above. In addition it will provide hot water for a shower bath. A useful feature is that the gas consumption is directly related to the temperature of the water supply and in the warmer months this could result in a saving in the amount of gas used.
Main Morley Ltd.,
48 Grosvenor Gardens, London, SW1.

4. Flooring

A new FLOOR TOPPING, which is trowel applied, has a high degree of resistance to chemical attack combined with abrasion resistance comparable to that of a ceramic tile. Tested in a machine where a loaded steel wheel duplicated the action of a trolly turning a corner, the surface showed no measurable scoring after 50,000 cycles. The product is a two-pack material, each container weighed so that no further measuring is required on site. In one pack is an Epoxy resin base, with specially selected aggregate, pigments, flexibiliser and accelerator. The other pack contains a hardener. The topping dries hard enough to take light traffic in 24 hours, and a full load in three days. It can be applied to any soundly constructed floor. The smooth, tile-like finish creates no dust, and dirt retention is extremely low. The jointless nature of the floor, and the fact that the composition itself is bactericidal and fungicidal, makes infection and fungus growth virtually impossible. The flooring seems ideally suited to food factories, abattoirs, dairies and hospitals.
Evode Ltd.,
Stafford.

5. Fixing

A new patented unit, for securing duct and access covers in wood floors, is designed to enable the covers to be easily and quickly removed by the use of a simple LIFTING KEY. The unit is fitted in the wooden cover by merely boring a recessed hole. It is small and unobtrusive, fitting flush with the floor and, being part of the access cover, cannot fall out when the cover is removed. The unit consists of two simple parts—a brass countersunk ferrule and a steel securing nut and is suitable for use with a ¼ in. Whitworth machine screw or a no. 12 wood screw.
J. A. Hewetson & Co. Ltd.,
Marfleet, Hull.

6. Miscellaneous

The absence of joints is the feature of a new one-piece URINAL made from glazed fireclay. The end piece, channel and division piece are moulded integrally with the wall slab which not only ensures a high standard of hygiene but also makes installation easier. In dimension, the unit is 3 ft. 6 in. wide and 3 ft. 8 in. high and, if required, can be supplied without the central division. Fluted vitreous tiled treads (5in. wide) are available for floor mounting or setting in a raised plinth. The channel outlet grating is screwed into a cast iron trap to reduce overall depth to a minimum and this, together with the simplified means of installation, makes the Unislab, as it is known, suitable for fixing on upper floors. The units can be butted together for fixing in range form with flush pipes and spreaders according to need.
Twyfords Ltd.,
Stoke-on-Trent, Staffs.

7. Technical Publications

(a) The Sofono Electrical Division of FEDERATED FOUNDRIES has published a new and enlarged edition of its electrics booklet. Printed in colour, it describes the company's range of electric fires and heaters for home and industrial use. It includes details of the new Sofonoflame infra-coal and infra-log fuel effect fires, and of the recently introduced 1,500W and 2,000W versions of the Jupiter infra-red heaters, of which both domestic and industrial models are available. Copies can be obtained from the company at 4 Stratford-place, London, W1.

(b) A booklet published recently by the ASTLEY INDUSTRIAL TRUST LTD., industrial bankers of Alport House, Quay-st., Manchester 3, gives detailed information of the full range of hire purchase facilities provided by the Astley Group of Companies. It sets out services both to the individual buyer and industry.

News in Brief

Completion of Thousandth House

THE GUEST SPEAKER at the handing over ceremony of the 1,000th Wates Dormy House at Red Oak, Orpington, on November 1 was Mr. Peter Trench, OBE, BSc, FIOB, Director of the NFBTE. This four bedroom, centrally heated house was first introduced at Crawley in 1957 by Wates Built Homes Ltd.

£1m. Development in Jersey

PLANS HAVE been accepted in principle for the development, sometime in the future, of Fort Regent which overlooks St. Helier. Plans include a swimming pool, sports and tourist facilities, a £100,000 restaurant, and lifts to carry people to the centre from the town below. In addition to these facilities, which are to be built at public expense, a syndicate wishes to build a casino and hotel.

American Building Tour

A TOUR has been arranged by Mackays Travel Agency Ltd. (21 Bath-Street, Glasgow, C2), to America from November 25 to December 10, to include a visit to the Annual Convention and Exposition of the National Association of Home Builders, at Chicago. Visits will also be made on the tour, which costs £356, to New York, Philadephia, Washington DC and Miami.

Woodlands Estate

PLANS ARE BEING CONSIDERED by the local council for an estate of houses and flats linked with woodlands at Weybridge. The architect, Mr. Eric Lyons, OBE, FRIBA, hopes to create 'something more in keeping with the 18th century way of life.' He has said that he does not intend to 'ape mannerisms of building but to observe the mass-produced splendour achieved by Nash, and to make centres so attractive that the occupants would no longer want to move out.'

Engineering Conference

A CONFERENCE on engineering materials and design at which experts from laboratories, colleges, industry, government departments and advisory bodies will speak is to be held concurrently with the Engineering Materials and Design Exhibition at Earls Court. The conference, which will be held in the conference hall adjoining the exhibition, will last from November 13 to November 17. Details can be obtained from the Secretary, 2nd Engineering Materials and Design Conference, Commonwealth-house, 1-19 New Oxford-street, London, WC1.

Buyers' Institute Formed

THERE WAS a meeting on October 30 which was attended by buyers from all the major building and civil engineering contractors in and around the London area. An association has been formed which will be called the Institute of Civil Engineering and Building Buyers. A committee was elected as follows: Mr. Roland Cox, chief buyer with Messrs. Howard Farrow Ltd.; Mr. Dand (Bovis Ltd.); Mr. Gray (George Wimpey Ltd.); Mr. Hayward (Holland and Hannen & Cubitts Ltd.); Mr. Pond (Sir Lindsay Parkinson Ltd.); and Mr. Wenthenry (Ford and Walton Ltd.). No new members will be accepted for a period of 6 months.

A Senior Foreman Retires

AFTER fifty-two years service in the building industry with Higgs and Hill Ltd., Mr. W. F. Valentine, a senior foreman, has retired. A party to mark the occasion was held at the company's London office on October 26. Gifts of an electric fire, a gold watch and an electric drill were presented to Mr. Valentine on behalf of the directors and staff by Mr. Ronald F. Hill. It was in 1909, in days when a foreman was an expert in all branches of the trade and the services of engineers and other specialists were rarely available, that 'Bill' Valentine commenced work with Higgs and Hill. His jobs have ranged from foundation work of extensions to Broadcasting House to the erection of the 2nd Church Christ Scientist at Notting Hill. He now retires to his house in Surrey with best wishes from all for the future.

Construction Index Higher

THE INDEX of industrial production prepared by the Central Statistical Office shows a rise in construction from 117 in the second quarter of 1960, to 126 in the corresponding period this year. This compares with 111 in 1959 and is based on 100 in 1954.

Trade News

Novel Wallpaper Designs

THE LIGHTBOWN ASPINALL branch of the Wall Paper Manufacturers Ltd. are proposing to introduce from January, 1962, the first machine-printed Palladio Mondo wallpapers which so far have been available only in expensive, hand-printed papers. The collection contains 30 different designs, each available in two or more colours. The designs range from traditional to contemporary, most of them being pleasing to the eye and easy to live with. One charming design is based on the artist's Brittany sketchbooks and is a series of vignettes in grey or sepia tints on a white background. All the wallpapers are fully trimmed and ready for use and will retail from 8s. to 22s. 6d. a piece.

Optimistic Company Report

AT THE annual general meeting of Williams and Williams Ltd., window manufacturers, the chairman, Mr. S. R. Hogg, reported that in the quarter ending on July 31 the trading of the company had been the highest in its history, but that the effects of the economic situation were now being felt. Overseas competition had become keener but the European companies were in a good position to take advantage of entry into the Common Market. The trading profit for the year ending April 30, 1961, was £227,084 compared with a loss of £21,935 for the previous year. It was regretted however that because of a final debit balance dividends could not be resumed.

New Price Structure

THE ARBORITE CO. (U.K.) LTD. have introduced a new price structure for Arborite, the Canadian-made decorative laminate. The standard and bending grades are reduced from 3s. 10d. to 3s. 6d. per sq. ft. (plain colours from 4s. to 3s. 6d.). Post-forming grade now costs 4s. 2d. per sq. ft. instead of 4s. 4d. and the thin Arborite (DC 30) 3s. instead of 3s. 2d. These prices apply to both high gloss and satin furniture finishes in all standard sizes. The recently introduced 'texture' finish costs 2d. per sq. ft. extra. Standard cut size panels of Arborite will retail to the public at 4s. 9d. per sq. ft.; random sizes will now cost 5s. 3d. per sq. ft.

Personal Column

Three additional directors have been appointed to the board of Taylor Woodrow Ltd., the parent company of the Taylor Woodrow Group. MR. NORMAN F. H. W. D'ARCY of Norman D'Arcy and Associates Ltd., investment bankers, has accepted the board's invitation to join the company as a non-executive director; MR. R. G. HEASMAN and MR. HAROLD MCCUE, both long service members of the Group, have also accepted appointments as directors.

MR. P. E. MILLINGTON has recently been appointed sales manager of the Aston Brass Company, a section of the Valor Company Ltd., Erdington, Birmingham.

Due to the continued expansion of business, Stuart B. Dickens Ltd., Manor Way, Boreham Wood, Hertfordshire, makers of chemical products, have appointed three representatives: MR. M. DOVE to cover the area from Hampshire to Kent, operating from 6 Little Tangley, Wonersh, nr. Guildford; MR. F. CAREY to cover London north of the Thames, operating from head office; MR. A. MCMAHON to cover the Scottish Lowlands area, operating from 17 Kenmore-terr., Bogie Mains, Kirkcaldy.

Company News

The directors of Babcock & Wilcox, Ltd. have announced that no interim dividend will be paid on the company's ordinary stock.

PERMANITE LTD. has declared an interim dividend of 7 per cent (less tax) on the ordinary shares of the company for the year ended Dec. 31, 1961 (8 per cent=1960).

POWELL DUFFRYN LTD. has acquired the BAYLY AND BARTLETT TIMBER GROUP, of Plymouth, which has a share capital of £140,756. The Bayly and Bartlett group comprises twelve companies (including the holding company), operating in Devon and Cornwall as timber importers, sawmillers, wood preservers; builders' and plumbers' merchants; home-grown timber merchants; and pallet and joinery manufacturers. The basis of the acquisition is one fully paid ordinary share of 10s. of Powell Duffryn for each ordinary share of £1 of Bayly and Bartlett.

CHAMBERLAIN INDUSTRIES LIMITED, manufacturers of the 'Staffa' range of pipe, bar and section benders and also hydraulic equipment, have appointed Iino Sangyo Kaisha Ltd., Osaka Branch, Shin-Osaka Building, No. 25, 1-Chome, Dojima-Hamadori, Osaka, Japan, to represent them in Japan for the sales of specified benders.

J. D. TRACTORS LTD., sole concessionaires in England and Wales for John Deere-Lanz equipment, have recently announced the appointment of BRISTOL PLANT HIRE LTD. as sales and service dealers for an area covering Hampshire, West Sussex and Eastern Dorset. Bristol Plant Hire will be operating from a plant depot at Fareham, nr. Portsmouth. This depot has been managed since 1954 by MR. T. HAYSOM. He is assisted by MR. B. A. HILL, who will be covering the area as John Deere-Lanz Sales representative.

OVERSEAS BUILDING

From Our Own Correspondents

AUSTRALIA (SOUTH).—The Adelaide City Council is examining plans for a £6½m. redevelopment of the Central Market site.

AUSTRALIA (SOUTH).—Two 10-pin bowling centres are being planned for Adelaide. Their construction is part of a £5½m. programme announced by the Australian Resident Director of Brunswick International Chicago.

AUSTRALIA (TASMANIA).—Plans to develop the Lake Fisher dam near Zeehan as a fishing and tourist resort have been announced by the Zeehan Progress Association and the Rosebery Anglers Association. The plans include raising the height of the dam to increase the lake's capacity to 100 acres.

AUSTRALIA (WESTERN).—Plans for extensive development in the centre of Fremantle, including the erection of new civic buildings, were announced recently. It is planned to remove all existing buildings in an area bounded by Queen, Adelaide and Cantonment-streets to east of Point-street, and to re-zone the area solely for retail trade, with big department shops and parking areas. A two-storey administration block, hall-foyer, supper room and exhibition hall next to the present Town Hall buildings, will also be constructed, while a new public library in the same area may be built later.

BWI (BERMUDA).—The Briton Hotel Co. Ltd. has been formed by three Canadians who have bought the Briton hotel in Hamilton. An expansion programme, the first stage of which is for £33,000, is planned. The architect is Richard Bolton working with Onions and Bouchard of Bermuda.

CANADA (ALBERTA).—West Newsprint Mills Ltd. plans the construction of a $38m. paper plant at Whitecourt for completion in 1963. . . . The University of Alberta is to construct a $1m. gymnasium, a $2.5m. library, and an engineering building.

CANADA (BRITISH COLUMBIA).—Construction of a new $1m. bulk loading dock for Vancouver Wharves Ltd. has been announced. . . . The Columbia Power Project has called for the construction of three storage dams; the Mica Creek Dam (estimated cost $247m.); the Arrow Dam ($71m.); and the Duncan Lake Dam ($25m.). If the International Treaty is ratified, the Arrow and Duncan projects will be completed within five years and the Mica dam four years later.

CANADA (NOVA SCOTIA).—An $8m. plant on an eight-acre site is to be constructed for Lunenburg Sea Products Ltd. at Battery Point, Lunenburg Harbour. . . . A $2.5m. extension is planned for the Lord Nelson Hotel in Halifax.

CANADA (ONTARIO).—Construction of the $67m. Spadina Expressway, running through Toronto, has been approved. . . . The Hamilton Harbour Commission has approved the construction of a $5m. addition to the Catherine-street terminal. . . . A $4m. engineering building is to be constructed at Assumption University, Windsor. . . . A $1.5m. highway is to be constructed in Ottawa's south-western outskirts.

CANADA (QUEBEC).—The City of Montreal is considering the construction of two underground railways, to cost approximately $150m.

DOMINICAN REPUBLIC.—A new public market centre with combined car park and bus and lorry terminal, three new streets, and improvements to the water supply system are planned for Santiago.

MALAYA.—The Minister of Education has announced that the Federal Government will spend $260m. during the next five years on the construction of new and the maintenance of existing schools.

NEW ZEALAND.—The Government has approved the calling of tenders for the first stage of the new science buildings at the University of Canterbury. The buildings have been designed by the Government Architect, and planning and construction has been divided into two stages. The first comprises an eight-storey block for physics and chemistry, mathematics, psychology and philosophy; a two-storey block providing central lecture theatres; and a two-storey block for library and administrative facilities. Stage two comprises a three-storey block for botany and geology; and a six-storey block for zoology and geography. Construction of the two stages is planned to take four years.

PERU.—The Corporatión de Fomento y Desarrollo Económico, a government agency in charge of development programmes in the Province of Tacna, was formally established early last month. An international tender will be called for the financing and execution of the project.

YOUR
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MERCHANT
will tell you
about
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SCOTTISH BUILDER

Prize-Winner's Plans Rejected

THE Scottish Home Department has rejected plans for a housing scheme in Lerwick prepared by Mr. R. E. Moira, the Edinburgh architect who designed the Lerwick scheme which won the Saltire Society's award last year. The Department has considered that the scheme would cost too much. Plans for a cheaper scheme will now be prepared.

New Buildings

AYR.—TC is planning a £250,000 winter gardens with concert hall, ballroom, conference hall, bowling alley, and aquarium. This project is part of the general development of the Clyde House site on the sea front which the town hope to extend as a resort attraction.

BANFFSHIRE.—A 10,000 sq. ft. extension to the Buckie factory of AEI Lamp and Lighting Co Ltd. is proposed. The extension is to be built by the Industrial Estate Management Corpn. for Scotland as agent for the Board of Trade.

GLASGOW.—The Scottish Special Housing Association has received planning permission for erection of a 9-storey block of 65 houses, an electrical sub-station and 22 lockups, at the junction of Fortrose-st./Dumbarton-rd., Glasgow. . . . Corporation's housing department has been granted approval for construction of 31 lockups at 42 Lyoncross-rd., Glasgow, SW3. . . . The education department has received approval for a community centre at Kinfauns-dr. in the Drumchapel housing area. . . . West Nile Investments Ltd. has received approval from the planning committee for the erection of a block of offices and shops, on an amended plan, at 36/68 Sauchiehall-st., on the site of an existing theatre which would be demolished to make way for the development. . . . John Lawrence (Glasgow) Ltd. has been given approval for a project of five blocks and two blocks of flats at Maple-st., Glasgow, SI. . . . The Corporation housing department has approved plans for 100 three-apart. houses and 33 lockups in Surrey-st., Glasgow. . . . Mactaggart & Mickel Ltd., of Glasgow, has received planning permission for the erection of 2,000 houses at Lennoxtown at the Campsie Glen site, Campsie Hills. This private development will include a variety of houses, flatted and individual with playing fields and shops. The comprehensive development will start next year. The plan was turned down two years ago as being premature but a further application received approval from the Secretary of State for Scotland. The new development will create a small town which will be used largely by Glasgow residents, moving out of the city.

GREENOCK.—Plans of flats and shops to be built on a bombed site at Central Station-ave., Greenock, were approved recently by Greenock Dean of Guild Court. Two four-storey blocks will comprise 46 houses and seven shops. The estimated cost of the scheme is £150,000.

MOTHERWELL.—Grampian Properties Ltd. has commenced work on a £200,000 scheme at Merry-street, Motherwell. This includes a 36-room hotel, a supermarket, shops and office suite, a bowling alley and other developments. Completion is for 1962.

PAISLEY.—The first plans for the redevelopment of the south end of Paisley have been submitted to the Dean of Guild Court. The Court passed plans for 26 three-apartment maisonettes and a laundrette in Neilston-rd., opposite Paisley Royal Alexandra Infirmary. Plans for a further 30 two-apartment flats in Espedair-st., were continued and will be submitted again next month.

THE BUILDER CONSTRUCTION NEWS

Full details of Public Appointments open will be found in the Advertisement pages of this and previous issues.

CONTRACTS OPEN

For some contracts still open but not included in this list, see previous issues. Those preceded by the symbol (A) are advertised in this number. The latest date for the receipt of tenders or applications appears above each paragraph. The symbol (R) preceding each entry indicates that applications must be received by this date.

BUILDING

NOVEMBER 3

(AR) BEDDINGTON AND WALLINGTON BC.—Firm price tenders for the conversion of existing premises into 13 flatlets for elderly people.

NOVEMBER 6

(AR) MITCHAM BC.—Erection of 245 dwellings, etc. at Phipps Bridge redevelopment scheme. Boro' E&S. Tenders by Dec. 14.

NOVEMBER 7

(AR) LEEDS REGIONAL HOSPITAL BD.—Fixed price tenders for alterations and extensions at Lloyd Hospital, Bridlington. A to Bd. Dep. £2 2s. Tenders by Dec. 7.

NOVEMBER 8

(AR) NEWCASTLE REGIONAL HOSPITAL BD.—New laundry building, engineering workshops and stores, at Newcastle General Hospital. Sec. to Bd.

NOVEMBER 10

(AR) KENT CC.—Construction of playing fields at St. John Fisher RC sch. site, Ordnance-st., Chatham, Kent. County Estates Officer.

(AR) PLYMOUTH CITY C.—Erection of a branch library at St. Budeaux, Devonport. City A. Dep. £3 3s.

(AR) SLOUGH CORPN.—Fixed price tenders for the supply and erection of a timber prefabricated building for dressing accommodation at Mercian Way recreation ground. Boro' E. Tenders by Nov. 22.

NOVEMBER 11

(AR) EAST ANGLIAN REGIONAL HOSPITAL BD.—Inclusion in approved list of contractors for hospital building works. Bd.'s E., Anstey Hall, Trumpington, Cambridge.

EIRE (Belturbet).—Erection of proposed factory at Belturbet Co. Cavan. T. C. Whelan, surveyor, 1/2 Cavendish Row, Dublin. Dep. 20 gns.

EIRE (Co. Longford).—Erection and completion of factory premises at Ballymahon-rd., Longford. Philip Ginnell, architect, 31 Pearse-st., Mullingar and 33 Main-st., Longford. Dep. £20.

(AR) PAIGNTON UDC.—Firm price tenders for 39 old people's flats and caretaker accommodation at junction of Brixham and Longstone roads, Tweenaway Cross. Clerk to C. Dep. £2 2s.

NOVEMBER 13

(AR) DODWORTH UDC.—Housing at Gilroyd (eastern section, phase 2). Clerk to C.

NOVEMBER 15

(AR) DURHAM CC.—Erection of standard police houses at The Causeway, Wolsingham. County A.

NOVEMBER 17

(AR) MALDEN & COOMBE BC.—Erection of 38 maisonettes at Sussex-pl. (stage 2). Boro' E&S.

(A) WIMBLEDON BC.—Erection of nine flats with garages. Boro' E&S. Dep. £2 2s.

NOVEMBER 24

(A) CHAPEL-EN-LE-FRITH RDC.—Fixed price tenders for 57 'Homeville' dwellings in six parishes. The Homeville Co., 12 Crauford Rise, Maidenhead, Berks. Dep. £2 2s.

EIRE (Limerick CC).—Erection of a new branch library at Galbally, Limerick. Patrick J. Sheahan, architect, 47 O'Connell-st., Limerick. Dep. £5.

NOVEMBER 30

(AR) GLASGOW CORPN.—Several works in connection with the erection of 169 houses at Pollokshaws. Architectural & Planning Dept., 20 Trongate, Glasgow, C1.

DECEMBER 1

(A) WALSALL CBC.—Fixed price tenders for 120 flats at Lower Farm estate. TC. Boro' E&S. Dep. £2 2s.

DECEMBER 7

(A) SOUTHPORT CBC.—Provision and erection of a sectional timber building in 'pleasureland.' Boro' E.

DECEMBER 11

(A) BOURNEMOUTH CBC.—Fixed price tenders for the modernisation of a laboratory at Porchester school, Porchester-rd. Boro' A. Dep. £1 1s.

DECEMBER 13

(A) MAIDENHEAD BC.—Firm price tenders for 58 houses at Cox Green estate. Boro' E&S. Dep. £2 2s.

DECEMBER 18

(AR) GRAVESEND BC.—Erection of 120 houses at Singlewell and Cruden-rd. extension sites. Boro' E&S.

NO DATE

(A) LLANGEFIN UDC.—(a) Erection of 24 dwellings, etc.; (b) 26 dwellings, etc.; (c) abattoir, lainage, cold storage, offices, etc. Clerk to C. Dep. £5 5s. (a and b). Dep. £2 2s. (c).

(A) SCUNTHORPE (Lincs.).—Erection of the John Leggott grammar sch., West Common-la. County A.

SERVICES, PAINTING, MATERIALS, ETC.

NOVEMBER 11

(AR) EAST ANGLIAN REGIONAL HOSPITAL BD.—Inclusion in approved list of contractors for hospital engineering services. Bd.'s E., Anstey Hall, Trumpington, Cambridge.

NOVEMBER 20

(A) HORNCHURCH UDC.—Repairs to accommodation bridge over railway, between Burnway and Woodhall-cres. E&S. Dep. £2 2s.

DECEMBER 6

(A) SALE BC.—Fixed price tenders for the supply and installation of oil-fired central heating and hot water services in two blocks adjoining aged persons flats, including communal rooms, laundry, etc., at Roebuck-la. Boro' E. Dep. £2 2s.

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Lancs. & Ches. Representative: W. REDMAN, 11, Deneway, High Lane, Stockport, Cheshire. Tel: Disley 2034.

MUNICIPAL AND CIVIL ENGINEERING WORKS, ETC.

NOVEMBER 13

EDMONTON BC.—Resurfacing of approx. 61,000yd. of carriageway. Boro' E&S. Dep. £2 2s.

DECEMBER 5

ST. FAITH'S & AYLSHAM RDC.—Fixed price tenders for the laying of approx. 20,000 lin. yd. of concrete and stoneware sewers, from 6in. to 18in. dia., and the construction of 250 precast concrete manholes, together with other contingent works, mostly in the parish of Catton, adjacent to northern boundary of Norwich. W. Herbert Bateman & Partners, Halifax-house, Bank Plain, Norwich, Norfolk. NOR. 011.

DECEMBER 7

ROSCOMMON CC (Eire).—Construction of sewage scheme for village of Keadue. O'Dwyer, Son & Partners, 6 Burlington-rd., Dublin. Dep. £10 10s.

GENERAL BUILDING WORK (LONDON)

BATTERSEA. — Site Acquisition. — The LCC is to acquire a site of 2.854 acres for the enlargement of Battersea county school at a cost of £357,000. About 630 persons will be displaced.

ISLINGTON.—Site Acquisition.—The LCC is to acquire an extra 1.611 acres for the enlargement of Tudor county sec. sch. Cost is £95,000.

LEWISHAM. — Reception Centre. — The LCC's welfare committee has acquired, for £30,000, a former children's home and nursery training college at Lushington-rd., and propose to adapt it to provide a reception centre for 25 mothers (with their babies) and 19 expectant mothers. Part of the site may be used for another of the Council's services.

ST. MARYLEBONE.—Office Development.—A new office and shop block with a tower of 14 storeys is due for completion in February, 1963, on a site in Station-road, Edgware. The building will consist of a two-storey podium of eight shops and offices, with the central block rising a further 12 storeys to give a height of about 140 ft., and will be encircled by a ring road leading at the rear to a car park for about 162 vehicles. The development, to a design by John D. Morgan and David C. Branch, is being carried out by Wates Ltd. for Churchgate Property Company on a contract valued at £395,296. The main entrance hall will be faced with panels of mirrored glass and Italian mosaic, with a floor in terazzo.

WANDSWORTH.—Improvements.—Facilities for the teaching of science and other subjects at Rossa Bassett county sec. sch. for girls are to be improved by the LCC at a cost of £130,900.

(PROVINCIAL)

ALDERSHOT.—BC propose new swimming pool. Est. £250,000.

ASCOT.—Mrs. Rosa Harrison proposes erection of 41 houses and cottages at Tower Court. Inquiry held.

ASH VALE.—100 houses are proposed for Ash Vale Farm by Mr. A. H. Stock. Inquiry held.

BASINGSTOKE.—Work has started on the foundations for Basingstoke's combined new court house and police station. Authorised expenditure for court house and offices is £61,750. . . . Extensions are to be made to Basingstoke county high school for girls, est. £190,000. It includes the provision of new main assembly hall, gymnasium with changing accommodation, 4 new classrooms, six new division rooms, six new science laboratories, two new housecraft and one new needlework room and new kitchen.

BEESTON & STAPLEFORD.—Building starts next month on a £1m. housing estate planned by Beeston and Stapleford Council, Notts. It covers 26 acres of farmland.

BLACKBURN.—Following for BC: Approval in principle given to scheme for erection of two schools on 60 acres of land between Heyes-la./Gib-la.; erection of 130 houses and flats and 40 aged persons' flats at rear of Ragged School site; erection of 900 dwelling units between Heyes-la./Gib-la.; erection of 11-storey blocks flats at Smithies-st.

BLACKPOOL.—Lewis's Ltd. propose erection of shops and departmental store on the Promenade, after demolition of existing Palace Theatre ballroom, cinema. . . . Thos. M. Nutbrown Ltd. propose industrial redevelopment at Preston New-rd./Clifton-rd.

BOURNEMOUTH.—BC plan erection of 24 flats in 5 blocks, 12 semi-detached bungalows and 10 semi-detached houses at West Howe.

BOURNEMOUTH.—TC plan erection of old people's home with 40 beds at Puck's Dell, est. £70,500, and for similar home with 80 beds at Queen's-close, Christchurch, est. £110,000. . . . Purchasers of Pinehurst estate, West Moors plan 5 shops and approximately 80 bungalows. Negotiators for the purchasers are Riddett & Adams, Smith.

BRACKNELL (Berks.)—The Development Corporation is drawing-up an entirely new master plan for the town centre development, consequent on the decision to double the size of the town. Gen. Man. is J. V. Rowley. . . . Berks. CC propose erection of new nursery school.

BRADFIELD (Berks.).—RDC is to build 11 dwellings at Jennetts Hill. Est. £33,015.

BRAY (Bucks.).—Bray Court Properties Ltd. propose demolition of warehouse and erection of multi-storey block of flats at Bray Court. . . . 12 almshouses opposite, Jesus Hospital Almshouses, are proposed by the Clothworkers Co.

CHESTER-LE-STREET.—Broughs Ltd., Oxford-st., Newcasle-on-Tyne, are to erect shops, coffee bar and warehouse at Front-st., Chester-le-Street. Architects are A. K. Tasker and Partners, 25 New Bridge-st., Newcastle-on-Tyne.

COLWYN BAY.—J. & P. Jacobs Ltd. are to erect factory extensions at Mochdre. . . . BC is seeking loan of £45,307 est., for the erection of bungalows and flats at Tan-y-Lan-rd., Old Colwyn.

COOKHAM (Berks.).—RDC plan erection of 53 dwellings at Whyteladyes-lanes, Cookham Rise.

COTGRAVE (Notts.).—Another 150 houses for miners are planned for Cotgrave, Nottinghamshire. An application for planning permission is being made by the Coal Industry Housing Association to the CC. The site planned for development is 28 acres of land to the south of Colston Gate, Cotgrave. The new application is in addition to 200 houses at Cotgrave for which permission to build has already been given.

CULCHETH.—Lancs. EC propose the erection of a branch library during the 1963/64 building programme. Est. £27,800.

DENBIGHS.—Following Police building programme is proposed by CC.—New section station at Llanrwst; section station and house at Llansilin; section station at Rhos (Wrexham); section station at Llangollen; divisional police HQ at Wrexham; sub-divisional HQ at Ruabon, estimated total cost is £180,700; CC also propose erection of 14 police dwellings in Wrexham area.

DENHAM.—License Victuallers National Homes propose erection of 24 flats. Plans by H. P. Liberty and Partners, 33 Western Chambers, Western-rd., Southend on Sea.

DERBY.—Courtaulds Ltd., Coventry, propose erection of laboratories, offices and extensions to factory at Holme-la., Spondon. . . . Sheffield Regional Hospital Bd. propose operating theatre suite improvements at Derbyshire Children's Hospital.

DORKING.—South West Metropolitan Regional Hospital Bd. propose rebuilding of the General Hospital on existing site in 3 stages.

DORSET.—County library committee has accepted in principle, an 8-year plan for redevelopment involving new buildings or first-class conversions of premises at Blandford, Dorchester, Ferndown, Lyme Regis, Portland Tophill, Shaftesbury, Sturminster Newton, Swanage, West Moors and Wimborne. . . . Standing joint committee has approved

Contracts Placed

We are glad to receive from architects and quantity surveyors for publication details of contracts placed to the value of £20,000 or over. Such information should reach the Editor as soon as possible after the contract is signed. Names of the architect and other consultants associated should be given.

capital estimates for 1962/3 of £55,400. Of this, £48,000 is for building 16 police houses, £2,400 for garages and £5,000 for purchase of sites. Estimates approved for the four years from next year include £107,000 for police houses. Blandford new police station has been deferred to 1963/4 (£35,000) and the reconstruction of Sherborne Station (£10,000) to 1964/5.

ERITH (Kent).—A scheme to completely rebuild the town centre of Erith, Kent, has been approved by Erith BC. The scheme is to be carried out by Park Investments, Ltd., and involves the reconstruction of more than 25 acres at an estimated cost of nearly £6m. It includes the construction of a large departmental store and supermarket, and car parking space for 750 vehicles. In addition, there will be about 100 shops, together with flats and maisonettes, as well as banks, public houses, office blocks and club facilities, and a garage and filling station. Architects are Richard Seifert and Partners.

FELLING (Co. Durham).—During 1962, the UDC proposes starting work on the erection of 96 maisonettes and flats in Carlisle-st.; 130 houses near Redemarsh; 30 houses north of Queen Victoria-st., Pelaw; and 6 bungalows in Grange Terrace West. Surveyor (R. Morton).

GATESHEAD.—Matmers Properties Ltd., York-pl., Leeds, propose three-storey shopping developments at High-st. . . . Alderson and Garland, estate agents, New Market-st., Newcastle-on-Tyne, have submitted plans to the TC for shops, warehouse and offices at High West-st. for Messrs. J. Gray. . . . Woodwork Developments Ltd., Grant-st., Gateshead, propose factory at Albany-rd. for joinery, woodworking and coachbuilding. . . . Tyneside Structures Ltd., Factory-rd., Blaydon, has prepared plans for shops, etc., at Grahamsley-st. for Reuben Brothers, fancy goods dealers, 292 High-st., Gateshead. . . . Plans have been prepared by the Corporation's Chief Architect for the erection of 12 bungalows in the Pottersway area; 10 houses at Victoria-rd.; and 39 bungalows in the Causeway/Southway area. . . . Boro' E. (G. F. Winters) has prepared a 10 years' scheme for the erection of public conveniences on 12 sites throughout the town. The plans have been approved in principle.

GOLBORNE.—UDC propose erection of civic hall at Hesketh Meadow estate.

GOSFORTH (Northumberland).—Funds are being raised for the purchase of Oakfield House, Gosforth, for conversion into an independent girls' school. The cost of converting the premises into a fully-equipped school with a science block will be about £103,000, but it is not intended to carry out the whole project in one stage. Architects are Mauchlen, Weightman and Elphick, 12 Saville Row, Newcastle-on-Tyne.

GUILDFORD.—RDC has approved the erection of 46 houses fronting South-la., Ash, for Henry T. Hill & Son, Connaught Buildings, Brookwood.

HALTWHISTLE (Northumberland).—The RDC is approaching brewery companies to secure the construction of another hotel in the town.

HARTNEY WINTNEY.—RDC propose erection of 20 houses at Manor Park, Yateley.

HEBBURN.—Hebburn Trades and Labour Club are to purchase a site in Victoria-rd. east for new club premises. . . . William Leech Ltd., builders, St. James'-st., Newcastle-on-Tyne, are seeking permission to erect luxury flats on the Ponds site, Hebburn.

HOUGHTON-LE-SPRING.—William Leech Ltd., builders and contractors, St. James-st., Newcastle-on-Tyne, are seeking permission to erect about 300 houses, shops and flats at Shiney Row, Houghton-le-Spring.

KNUTSFORD.—Ches. CC propose further expenditure of £58,902 est. on renovations at Tatton Hall.

LANCHESTER (Co. Durham).—A new wing is to be built at Ushaw College to plans by D. Brown, 10 Lambton-rd., Jesmond, Newcastle-on-Tyne.

LEEDS.—Following for TC: Ministry approval sought for modernisation of CP school at Hunslet Moor; erection of CP school at Swinnow-la.; erection of aged persons' home at Kirkstall, £90,000 est. . . . The Yorkshire Bank Ltd. propose offices at Queen-st.

LEIGH.—BC seek loan sanction for erection of 40 dwellings at Siddow Common, £52,388 est. . . . Leigh Labour Club propose erection of new club premises at Higher Fold.

LETCHWORTH.—PC council of St. George propose erection of new church at Norton, £40,000 estimated. Architect: P. Bosanquet, 60 St. John-st., Oxford.

LIMERICK (Eire).—City C are to consider a scheme for the erection of a new Town Hall. Estimated cost is £200,000.

LIVERPOOL.—TC propose erection of comprehensive school at Paddington. . . . Walker Cain Ltd. propose erection of licensed premises and residential hotel at Cherryfield-dr., Kirkby. . . . Dunlop Footwear Ltd. propose erection of social club at Rice-la. . . . Gaumont British Cinemas Ltd. propose conversion of Beresford Cinema, Park-rd., into supermarket and offices. . . . Lewis's Ltd. propose erection of storage and transport depot at Ainsworth-st./Edward-st.

LIVERPOOL.—Poulton & Freenman propose redevelopment of 30/32 Benson-st., and 46/48 Mount Pleasant, for Union headquarters building. . . . Thames Estates & Investments Ltd., London, propose erection of a 10-storey offices and parking facilities at The Strand/Moor-st.

LLANDRILLO.—Plans approved by Denbighs CC and Caerns. CC for erection of joint technical education college.

LLANRWST.—UDC seek sites in Scotland-st./Back Watling-st. for erection of Public Hall.

LLANRWST.—Denbighs EC propose erection of new county sec. school.

LUTON.—Ellis and Goldstein (Luton) Ltd., 40 Guildford-st., Luton, propose erection of new factory, office and canteen at Guildford-st. . . . Luton Motor Co. Ltd. proposes new warehouse and service building at Connought-rd., Blundell trading estate. Plans by S. R. Johnson, 33 Cardiff-rd., Luton.

MAIDENHEAD.—British Railways propose conversion of the Arches at Shoppenhangers-rd. into shops. . . . Taylor Woodrow Ltd. propose 126 dwellings and 119

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garages fronting Boyn Hill and Boyn Valley-rd.

MANCHESTER.—University Senate propose erection of chemistry block at Upper Brook-st. . . . Thomson Newspapers Ltd. propose erection of new bridge at Mark-la. . . . BBC negotiating with TC for acquisition of site at Oxford-rd. area for erection of new North Regional HQ. . . . T. Ashcroft & Son propose erection of car service depot at Beaufort-st.

MARPLE.—Kay Bros. Ltd. are considering erection of new factory.

MIDDLESBROUGH.—J. G. L. Poulson, 54 Albert-rd., Middlesbrough, has prepared plans for 50 bungalows at Tollesby-rd. for A. E. Gray & Son, builders and contractors, Tynedale-st., Stockton-on-Tees. . . . Plans have been approved for the erection of two shops and flats at Acklam-rd. for Shannon (Contractors) Ltd., 44 Marsh-rd., Middlesbrough. . . . Plans are being considered for the erection of a factory and showroom at Cumberland-rd. for Messrs. Troldahl Ltd. Architects are Crawford & Spencer, 91 Borough-rd., Middlesbrough. . . . Boro' E. (J. A. Kenyon) has prepared plans for 41 houses, 16 flats and 54 garages at Dunstable-rd., Middlesbrough. Contracts will be let shortly. . . . TC is being urged to proceed as soon as possible with a £50,000 scheme for modernising the refuse disposal plant. Boro' E is J. A. Kenyon.

MIDDLESBROUGH.—An old people's hostel, costing £64,000, is proposed for Pallister Park. Boro' E is J. A. Kenyon.

MILLOM (Cumberland).—During the next five years the RDC are to spend £250,000 on housing, £26,700 on a sewerage scheme at Drigg-Holmrook, and £10,000 on a sewerage scheme at Seascale. Council's surveyor is Mr. J. Hankey.

MOCHDRE.—Smith's Potato Crisps Ltd. propose erection of new factory at Glan-y-Wern-rd.

MORPETH.—During 1962, Newcastle-on-Tyne Hospital Bd., Benfield-rd., Newcastle-on-Tyne, are to start work on a £42,000 teaching unit for the nursing staff at Stannington Hospital, Morpeth. Bd.'s Chief Architect is P. H. Knighton.

NEWBURY.—Oxford Regional Hospital Bd. has included in their long-term development programme a major scheme to build a 250-bed new general hospital on a 12-acre site at Goldwell Park.

NEWBURY—RDC is to proceed with flood relief scheme at Thatcham, est. £40,000. RDC Surveyor is C. J. Cooke. . . . Work has started on RDC's 450-house estate north of Chapel-st., Thatcham. The first part of the work will probably be done in three stages over five years involves building 131 houses and 82 garages at a cost of £241,392. Design and layout is by Gregory Housing of Worthing. . . . TC has approved amended layout for erecting three-storey blocks of flats on Turnpike-rd. estate.

NEWCASTLE-ON-TYNE.—City C has been asked to postpone for three years a £233,000 proposed shopping centre at Fawdon. . . . City Council's housing committee have approved in principle a £3,750,000 development scheme in the Scotswood-rd. area of Newcastle. The project includes a modern shopping centre with 30 shops, two multiple stores, health centre and branch library; a 15-storey block of 180 small flats above the shopping centre; two further 15-storey blocks of flats; four blocks of four-storey maisonettes; two storey houses built in groups of 30; and a car park under the shopping centre for 100 cars. . . . Plans by Barclays Bank Ltd. to erect £130,000 bank and offices in Northumberland-st., have been the subject of a Ministry inquiry.

NORTHALLERTON (Yorks).—Sketch plans have been prepared by P. H. Knighton, Chief Architect to Newcastle Hospital Bd., Benfield-rd., Newcastle-on-Tyne, for a maternity dept. at Friarage Hospital.

NORTHERN IRELAND.—A new terminal building and apron, estimated to cost £720,000, and to be ready in 1963, are to be built at RAF Aldergrove Aerodrome, to replace the present civil airport at Nutt's Corner, Belfast. The terminal building and accommodation will be among the most modern in Europe. The design team from the architects (W. H. McAlister and Partners Ltd., Belfast) have looked at a number of new Continental airports and some special features have been incorporated in the design. Yorke, Rosenberg and Mardall, who were responsible for the design of the terminal building at Gatwick Airport acted in an honorary capacity as planning consultants.

NORTHWICH.—UDC propose erection of 24 bungalows and 10 houses on a site of Northwich Vicarage.

NOTTINGHAM.—T. S. Kay & Sons, Hull, propose erection of flats and shops at Goose Gate/Brightmoor-st.

ORRELL.—Wigan BC propose development of land at Johnson-st./Moss-st./Brook-la. area, and erection of shops at Fleet-st., Lamberhead Green.

OXFORD.—County Dairies (Oxford) Ltd. propose new distribution centre at Watlington-rd. industrial estate. Architects: Cripps and Stewart, London-rd., Headington, Oxford.

OXFORDSHIRE.—CC has recommended to the Ministry of Housing that the official inquiry into plans to double the size of Banbury should be held next March. The county council suggests that the town's population should rise to 40,000 by 1974, partly by attracting overspill from London.

RAMSBOTTOM.—Lancs. CC are to erect a new branch library during 1963/64. Est. £29,300.

READING.—BC propose erection of 37 flats and 26 garages at Coronation-sq., Bath-rd. . . . Governors of Leighton Park Quaker School propose extensions and new buildings. Est. £200,000.

RUNCORN.—Ches. CC propose alterations and extensions to county sec. school, Balfour-rd. . . . ICI Ltd. propose office extensions at Castner Kellner Works. . . . Broadbridge Bros., Moss Side, Manchester, propose erection of two-storey blocks of flats and garages at Norman-rd. . . . Cholmondeley Developments (1961) Ltd. propose erection of 74 detached bungalows, 5 detached houses and 34 sd houses at Clifton-rd. . . . The Highfield Tanning Co. Ltd. propose erection of 25 dwellings at 'The Mount,' Moughland-la. . . . Littlemore Bros. propose erection of two-storey shop and bakehouse at Granville-st. . . . F. Mercer proposes residential development adjacent Grange Farm, Weston-rd. . . . Lea & Son (Runcorn) Ltd. propose erection of offices at Nelson-st.

SANDHURST.—Easthampstead RDC is recommended to proceed immediately with the first phase of the Sandhurst & Crowthorne main drainage scheme. Est. £116,000.

SHEFFIELD.—A multi-storey car park is to be built in Bank-st. behind the ABC cinema and the T. B. and W. Cockayne Ltd. store. The building is to be erected by private enterprise, and will house several hundred cars. Sheffield Town Planning Committee have already accepted in principle, the proposals for the car park. The committee have referred the proposals to the plans subcommittee with the recommendation that they should be accepted. It is understood that the scheme has been put forward by Husband and Co. the Sheffield civil engineering firm who built the Jodrell Bank telescope in conjunction with Gleesons Ltd.

SHIPLEY.—Heaton Estates Ltd. propose residential development at Roundwood, Moorhead-la.

SHREWSBURY.—Salop EC propose erection of centre for young handicapped children. Est. £28,400.

SKIPTON.—West Riding CC propose erection of new fire station at Lower Commercial-st.

STOCKPORT.—Following for BC: Adult training centre for mentally sick at Portwood; erection of two blocks of 11-storey flats at Brinnington, and 3-storey block of flats at Dunton Green.

STOCKTON-ON-TEES.—TC's five years' building programme is to include a sports arena costing about £90,000, at Norton-rd., Stockton. Provision will also be made for a skating rink.

SUNNINGDALE.—Windsor RDC propose erection of houses at Rise-rd.

SWINTON & PENDLEBURY.—Lancs. EC propose transferring Cromwell-rd. Pendlebury CP sch., to new site during 1964/65 building programme.

THAMES DITTON.—Southwark Diocesan Schools Commission propose RC primary school at Hampton Court Way, £55,000 estimated. Architects: F. G. Broadbent & Partners, 13 Manchester-sq., London, W1.

TYLDESLEY.—Lancs. CC are seeking a site for erection of old people's hostel. . . . Labour club is negotiating with UDC for the acquisition of part of Council yard site at Lemon-st. for erection of new club premises.

WALLINGFORD.—RDC propose 3 blocks of cottage flats at South Queensway site, Didcot.

WATFORD.—A new shopping centre scheme for the city has been announced by H. O. Hills stores group. It envisages two tower blocks, one containing flats, the other offices, entertainments, and more flats. In addition, nearly 400,000 sq. ft. of shopping space is planned on two levels. A department store would be operated by the group. The shopping area is planned around a 'garden court,' a covered, air-conditioned, and traffic-free piazza to provide a summer-like atmosphere at all times of the year. The scheme—estimated to cost around £2 millions—is said to have the support of Watford council, but the county planners have rejected it. A public inquiry is to be held.

WELLINGTON (Salop).—UDC propose improvement scheme to existing swimming baths, £40,000 est. Consideration being given to provision of swimming baths in the Wenlock and Wrockwardine Wood areas, also learner baths at Newport (Salop) and Shifnal.

WEST BYFLEET.—Woking Council has accepted scheme for development of Sheer House-John O' Gaunt site by Norwich Union, 49 Fleet-st., EC4, which includes provision of two-storey shopping area, car park, four-storey office building and library. Messrs. Scott, Brownrigg & Turner, architects.

WIGAN.—Humphrey Park Estates Ltd. Urmston, Manchester, are to erect 80 private

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houses at Standish area.

WOKING.—BC propose new civic buildings, £740,000 est. Architect: G. H. McMorran. . . . UDC has approved plans for 46 flats at Mount Hermon-rd.

TENDERS

(A) Denotes *accepted.*
(PA) Denotes *provisionally accepted.*
(RA) Denotes *recommended for acceptance.*
(AM) Denotes *accepted subject to modification.*
(GD) Denotes *accepted subject to approval by appropriate Government Department.*

ABRAM.—Erection of 6 flats and 32 houses at Bickershaw for UDC. (A) G. & J. Seddon Ltd., Little Hulton, Walkden, Lancs.

AYCLIFFE (Co. Durham).—Factory additions on the Aycliffe trading estate for Bridgewater Machine Co. Architects: Cordingley and McIntyre, Owengate, Durham City. (A) Edgar Lawson Ltd., 27 Victoria-rd., Darlington (work in hand).

AYLESBURY.—28 dwellings at the Warmstone estate, Waddeston, for RDC. (A) Morris Builders (Oxford) Ltd., £45,604.

AYLESBURY.—New five-storey extension to a factory for the Nestle Co. Ltd. Architects: Beard, Bennett, Wilkins & Ptnrs. (A) Y. J. Lovell (Bucks.) Ltd.

BAGSHOT.—Erection of 26 'Homeville' dwellings at Meadow Way for RDC. (A) J. S. Evans & Son, Maidenhead, Berks.

BANGOR (Caerns).—Conversion of Plasllwyd, High-st., into flats for BC. (A) H. E. Williams, Glan Conway.

BOOTLE.—Erection of 36 dwellings at Litherland-rd. for BC. (A) Direct labour.

BIRMINGHAM.—New factory for Messrs. R. Platnauer Ltd., Tenby-st. north, Birmingham 1. Architect: G. W. Mills, Walton-on-Thames. (A) R. Lyon Construction Ltd., Walton-on-Thames, Surrey, £45,000.

BISHOP AUCKLAND.—Erection of shops and offices at Newgate-st. for Foster and Son, builders' merchants. (A) George Stephenson Ltd., Holdforth Mill, Bishop Auckland.

BRISTOL.—New offices at Gipsey Patch-la., Filton, for Bristol Siddeley Engines Ltd. Architects: Mathews & Son. QS: C. E. Ball & Ptnrs. (A) Higgs and Hill Ltd., £912,000.

BRISTOL.—Erection of an 11-storey block of flats and garages at Summerhill-rd. for TC. (A) G. Wimpey & Co. Ltd., London.

CASTLEFORD (Yorks.).—Block of shops at Carlton-st. for Hammerson Group of Companies. Architects: Shingler & Risdon. QS: H. R. Heasman & Ptnrs. (A) J. Gerrard & Sons Ltd., £20,000.

CHESHUNT (Herts.).—New head office at Delamare-rd. for St. Albans Sand & Gravel Co. Ltd., Architect: Adam Gelister. QS: Leslie A. Keats & Ptnrs. (A) Townsend & Collins, Middx., £103,000.

COVENTRY.—Phase 4AD of Lanchester College of Technology. Architect: A. Ling, City A. (A) W. H. Jones & Son Ltd. (a Costain group member), £650,000.

DIDCOT.—Erection of new swimming pool for BC. (A) A. J. Robey Ltd., Didcot, £20,759.

DURHAM.—Construction of two bridges on Darlington by-pass for MoT and CC. (A) Cementation Co. Ltd., £226,796.

EAST KILBRIDE (Scotland).—Additions to shopping centre for Ravenseft Properties Ltd., London. Architect: Fenster & Ptnrs. QS: Cyril Sweett & Ptnrs. (A) Holland & Hannen and Cubitts (Scotland) Ltd., £196,000.

FROME.—Erection of 65 dwellings, etc., at The Mount housing estate for UDC. (A) Plommer & Hockey Ltd., Wells-rd., Radstock, Somerset, £117,491.

HEMEL HEMPSTEAD.—Erection of multi-storey car park and bowling centre at South Marlowes for the Development Corporation. (A) M. J. Gleeson (Contractors) Ltd., North Cheam.

HUDDERSFIELD.—First phase of new civic centre at Albion-st. for BC. (A) John Radcliffe & Sons Ltd.

KENDAL.—New factory at Mint Bridge for Glaxo Laboratories Ltd. (A) Taylor Woodrow Construction Ltd., Southall, Middlesex.

LEICESTER.—Erection of a five-storey building at Granby-st. for E. Alex. Colman Group of Companies. Architect: H. Owen Luder. (A) Sir Robert McAlpine & Sons, £85,000. Erection of 22 lock-up shops at Silver-st./Cork-st. for the E. Alex. Colman Group of Companies. (A) Sir Robert McAlpine & Sons, £70,000.

LONDON (Dulwich). — Adaptations to Camberwell School of Art and Crafts for LCC.

Hotson Bros. Ltd.	£28,977
W. R. Oldham Ltd.	26,254
W. S. Barton & Co. Ltd.	26,091
(A) H.C.S. Building Contractors Ltd.	22,768

Architect's comparable estimate is £21,435.

LONDON (Lambeth). — Extending and improving the Lawn-lane premises of Vauxhall Manor school for LCC.

Wm. J. Jerram Ltd.	£83,212
Marshall-Andrew & Co. Ltd. ...	82,820
Henry Kent (Builders) Ltd.	80,278
The Demolition & Construction Co. Ltd.	77,295
Y. J. Lovell (London) Ltd.	75,950
Thomas & Edge Ltd.	74,321
(A) W. J. Marston & Son Ltd. ...	71,140

Comparable estimate of the appointed architect, Mr. Elie Mayorcas, is £71,000.

LONDON (Lewisham).—Erection and equipment of a home for old people in the grounds of Ladywell Lodge for LCC.

Kirk & Kirk Ltd.	£192,064
Rowley Bros. Ltd.	190,153
Wilson Lovatt & Sons Ltd.	186,101
M. J. Gleeson (Contractors) Ltd. ...	183,946
Thomas & Edge Ltd.	183,695
Y. J. Lovell (London) Ltd.	179,968
Marshall-Andrew & Co. Ltd. ...	174,337
(A) Allen Fairhead & Sons Ltd. ...	172,515

Architect's comparable estimate is £175,527.

LONDON (Poplar).—Improvements, a new science block, to Bow county sec. sch. for boys for LCC.

Wm. Shurmur & Sons Ltd.	£33,918
Walter Lilly & Co. Ltd.	33,847
Marshall-Andrew & Co. Ltd. ...	33,478
Patman & Fotheringham Ltd. ...	32,511
Henry Kent (Builders) Ltd.	31,664
Galbraith Bros. Ltd.	31,248
Fredk. Smith & Co. (Builders) Ltd.	31,067
R. J. Truscott Ltd.	30,151
(A) Hammond & Miles Ltd.	29,497

Comparable estimate of Messrs. Hasker & Hall, the appointed architects, is £28,300.

LONDON (Poplar).—Repair, improvement and redecoration of Devons county prim. sch. for LCC.

J. W. Falkner & Sons Ltd.	£26,573
R. J. Rowley Ltd.	24,615
Yates (Bow) Ltd.	23,892
S. C. Grover, Ltd.	23,450
O. H. Groves & Co. Ltd.	22,715
Hammond & Miles Ltd.	22,671
(A) Clemens Bros. Ltd.	22,512

Architect's comparable estimate is £21,079.

LONDON (St. Marylebone).—Remodelling of Regent's Park county sec. sch. for LCC.

S. C. Grover Ltd.	£57,755
Wm. J. Jerram Ltd.	56,324
E. J. Lacy & Co. Ltd.	55,596
Poolman (Builders) Ltd.	54,607
(A) Hammond & Miles Ltd.	52,932

Architect's comparable estimate is £56,651.

LONDON (Southwark).—Repairs and improvements to Charles Dickens county prim. sch. for LCC.

Walter Lilly & Co. Ltd.	£47,740
Walter Gladding & Co. Ltd. ...	47,121
Henry Kent (Builders) Ltd.	46,170
(A) S. C. Grover Ltd.	34,733

Architect's comparable estimate is £39,631.

(GD) LONDON (Admiralty).—Particulars of contracts over £4,000 in value; *Hampshire:* Rehabilitation of laboratory; John Hunt Ltd., Gosport, Hants. *Fifeshire:* Construction of store; David Anderson Ltd., Dunfermline.

(GD) LONDON (Air Ministry).—Contracts to the value of £4,000 or over for week ended October 27: *Building work:* Honington, Suffolk; Walter Lawrence & Son Ltd., Swaffham, Norfolk. Mormond Hill, Aberdeenshire; Alexander Hall & Son (Builders) Ltd., Aberdeen. Brampton Park, Hunts.; Kerridge (Cambridge) Ltd., Cambridge. *Surfacing work (to existing paved areas):* Aldergrove, Northern Ireland; The Limmer & Trinidad Lake Asphalt Co. Ltd., Belfast. *Electrical work (electrical mains distribution):* Aberdeen, Kinloss, Morayshire, Wick, Caithness (etc.); James Scott & Co. Ltd., Glasgow.

(GD) LONDON (British Railways).—Recent contracts placed by the Southern Region: *Shoreham and Bramber:* New culvert; J. T. Mackley & Co. Ltd., Shoreham-by-Sea, Sussex. *Bentley:* Station renovations; Alfred Bagnall & Sons Ltd., Teddington, Middlesex. *Kingston:* Station renovations; Alfred Bagnall & Sons Ltd., Teddington, Middlesex. *Preston Park Station:* Earthworks and extension of platforms; Aubrey Watson Ltd., Henley-on-Thames, Oxon. *Dormans & Lingfield:* Station renovations; P. & M. Contractors Ltd, London, SW4. *Fareham and Swanwick:* Remedial work to slip; Campbell & McGill Ltd., Winchester, Hants. *Guildford:* Repairs to goods shed; Maurice Hill Ltd., Horndean, Hants. *Bournemouth West:* Station renovations; James Drewitt & Son Ltd., Bournemouth, Hants. *Portsmouth Harbour:* Repairs to concrete sub-structure; The Gunite Construction Co. Ltd., Hitchin, Herts. *Waterloo Station:* Repairs to asphalt surfaces; Durable Asphalte Co. Ltd., London, N1. *London (eastern) District:* Cleaning and painting of bridges; C. & T. Painters Ltd., London, NW10. *Feltham:* Repairs to locomotive sheds; The Gunite Construction Co. Ltd., Hitchin, Herts. *London Bridge:* Reconstruction of bridge; Caffin & Co. Ltd., Rickmansworth, Herts. *Nine Elms:* Recladding of roofs at power station; Maurice Hill Ltd., Horndean, Hants. *Crediton:* Reconstruction of part of bridge; Aubrey Watson Ltd., Henley-on-Thames, Oxon. *Waterloo Station:* Repairs to platforms; Aubrey Watson Ltd., Henley-on-Thames, Oxon. *Nine Elms:* Asphalting to canopy; Durable Asphalte Co. Ltd., London, N1. *Hastings Station:* Asphalting to roofs; Ragusa Asphalte Paving Co. Ltd., Shoreham-by-Sea, Sussex.

(GD) LONDON (British Railways).—New contracts placed by Western Region: Provision of timber piling to provide temporary support to a trimmer girder of No. 1 warehouse due to collapse of the dock wall at Brentford Docks; John Howard & Co. Ltd., Howard-hse., Buckingham Gate, London, SW1. Renewal of roof coverings, glazing and walkways at Canton carriage sheds and diesel maintenance depot, Cardiff; J. Rata

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& Co. Ltd., Chapter-rd., Willesden, London, NW2. Brush painting the passenger stations, goods shed, miscellaneous buildings, locomotive sheds and signal box, etc., at Aberystwyth and Borth; Arundel Painting Contractors Ltd., Edward-st., Louth, Lincs. Work to be performed in connection with the annual overhaul and survey of the s.s. 'Sir Richard Grenville,' 1961; Willoughby (Plymouth) Ltd., Millbay Docks, Plymouth, Devon. Brush painting the passenger station and goods depot at Llandrindod Wells; Gilmours (Manchester) Ltd., Higher-rd., Urmston, Manchester. Partial renewal of the abutments to Hope-rd., underbridge, Dinmore, nr. Hereford; Fairwater Construction Ltd., Fairways Crescent, Fairwater, Cardiff, Glam. Carrying out general brickwork repairs to nine bridges on the High Wycombe to Princes Risborough line; Aubrey Watson Ltd., Quebec-rd., Henley-on-Thames, Oxon. Provision and installation of an automatic telephone exchange at Plymouth Station; The Reliance Telephone Co. Ltd., Lawford-st., Bristol, 2.

(GD) LONDON (War Dept.).—Contracts placed for week ended Oct. 20: *Anglesey:* Painting and decorating work at Ty Cross Camp; G. Jones & Son (Contractors) Ltd., Liverpool. *Kent:* Roofing work at Ashford; C. Jenner & Son Ltd., Folkstone. *Merioneth:* Internal decorating at Tonfanau Camp; T. E. Cundy & Son Ltd., Leicester. Hutting repairs at Towyn; Watkins Jones & Sons Ltd., Bangor. *Norfolk:* Supply of kitchen equipment at Cranwich and West Tofts; G. F. E. Bartlett & Son Ltd., Hemel Hempstead. Electrical work at Cranwich and Tofts; Penmar & Co. Ltd., London, W9. *Shropshire:* Repairs to nissen huts at Donnington; Whitchurch (Salop) Contractors Ltd., Whitchurch. *Sussex:* Building at Chichester; Farrans Ltd., London, W1. *Warwickshire:* Horticultural work at Bramcote; Mould & Bloomer, Grantham. *Wiltshire:* Painting and decorating at Bulford; Ian Williams & Co. Ltd., Cardiff. Building at Bulford; Downing Rudman & Bent (Salisbury Plain) Ltd., Salisbury.

MANCHESTER.—Extensions to science block at Manchester grammar school for Governors. (A) H. Fairweather & Co. Ltd.

NEWBURY.—Erection of eight blocks of four flats at Turnpike-rd. housing estate for BC. Boro' S is J. D. Knowles. QS: H. J. Ridge & Partners.

A. J. Dunning & Sons Ltd.	£58,067
Gregory Housing	57,312
Hoskings & Pond Ltd.	50,915
(A) William Croft & Co. Ltd. ...	49,810

NEWCASTLE-ON-TYNE.—Work is in hand on four-storey extensions in Low Friar-st. for Crown Wallpaper Stores Ltd., Armley-rd., Leeds. (A) R. W. Bell and Co. (Builders) Ltd., Mistletoe-rd., Newcastle-on-Tyne.

PADDINGTON.—New office building for Dene Holdings Ltd. Architects: Mayell Hart & Ptnrs. QS: S. Lazarus & Ptnrs. (A) Y. J. Lovell (London) Ltd., £105,507.

PRESCOT.—Erection of 40 houses, 92 flats and 28 garages for UDC. (A) Gregory Housing Ltd., Worthing.

RAWTENSTALL.—Erection of flats at Ormerod-st. for BC. (A) Connolly Bros. (Builders) Ltd., Rossendale, Lancs.

ST. ALBANS.—New factory and office block for Belpar Rubber Co., Albion Mills, Albion-rd. Architect: G. W. Mills. (A) Ronald Lyon (Construction) Ltd., £30,000.

SHEFFIELD.—Regional tutorial centre at Lodge Moor for Regional Hospital Bd. (A) Frank Robson Ltd. Extensions to public abattoir for TC. (A) Direct labour.

SLOUGH.—Erection of new hospital at Wexham Park for NW Metropolitan Hospital Bd. (A) Humphreys Ltd., London, £2,400,000 (approx.).

SOUTHAMPTON.—Erection of 136 flats at Maybush for CBC. (GD) G. T. Crouch Ltd., Kingston House, Three Bridges, Crawley, Sussex, £301,423.

SOUTHAMPTON.—One block of five-storey flats (type B5), containing 16 flats at Thornhill estate at Harrison-rd. for City C. (GD) G. T. Crouch Ltd., Kingston House, Three Bridges, Crawley, Sussex, £49,453.

SOUTHPORT.—Erection of 56 dwellings at Staveley-rd. housing estate at Ainsdale for BC. (A) Sir Robt. Lloyd & Co. Ltd., Bromborough.

STOKE NEWINGTON.—New civil defence headquarters for MBC. Architect: Boro' E&S. QS: E. C. Harris & Ptnrs. (A) Y. J. Lovell (London) Ltd., £20,132.

TYNEMOUTH.—Erection of school for educationally subnormal children for TC. Architect: J. Smeds, 56a Camden-st., North Shields. QS: J. Glover, 13 Winchester-st., South Shields. (A) A. R. Robertson Ltd., East Park View, Blyth (provisionally).

WATFORD.—Erection of 38 dwellings and 19 garages at the Holywell estate for BC. (A) E. J. G. Morgan Ltd., Uxbridge, Middlesex, £71,814.

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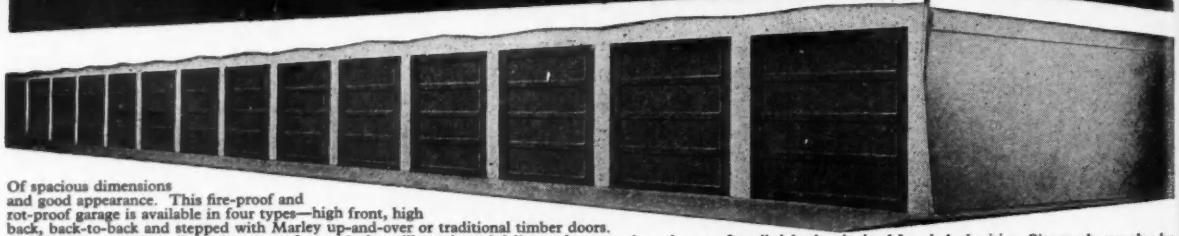
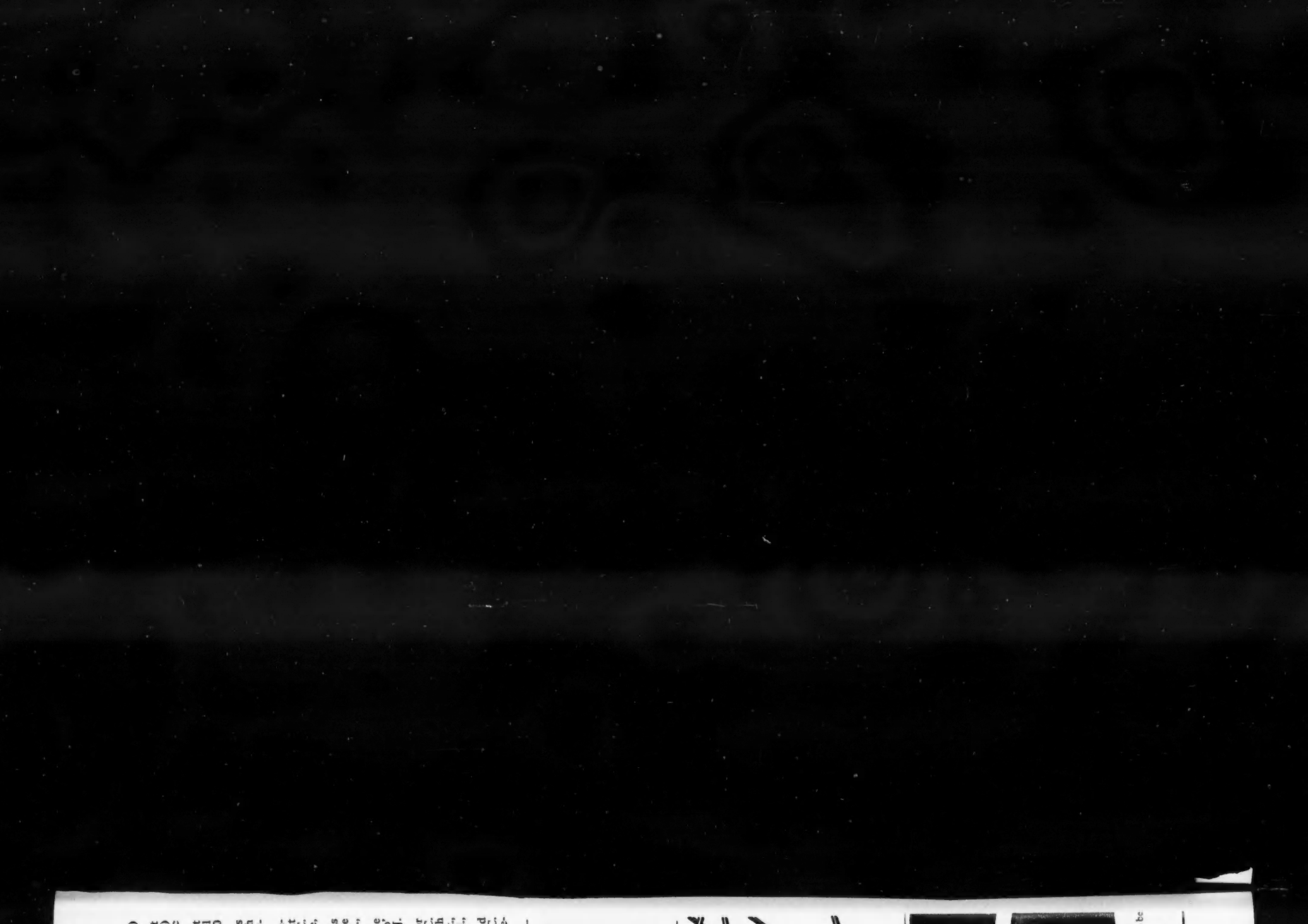
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